The Annual Quality Assurance Report (AQAR) of the IQAC
(For Universities)

Institutions Accredited by NAAC need to submit an Annual self-reviewed progress report i.e. Annual Quality Assurance Report (AQAR) to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the IQAC at the beginning of the Academic year. *The AQAR period would be the Academic Year.* ***2019-2020***

Part – A

Data of the Institution

(data may be captured from IIQA)

1		Name of the Institution	Sant Longowal Institute of Engineering and Technology, Longowal
	*	Name of the Head of the institution	Prof. (Dr.) Shailendra Kumar Jain
	*	Designation	Director
	*	Does the institution function from own campus	Yes
	*	Phone no./Alternate phone no.	01672-253100 (O), 253101 (R)
	*	Mobile no.	+919478400840
	*	Registered Email	director@sliet.ac.in
	*	Alternate Email	deanacad@sliet.ac.in
	*	Address	Sant Longowal Institute of Engineering & Technology
	*	City/Town	Longowal/ Sangrur
	*	State/UT	Punjab
	*	Pin Code	148106
2		Institutional status	
	*	University: State/Central/Deemed/ Private: (Tick appropriative)	Deemed
	*	Type of Institution	Co-education/Men/Women Co-Education
	*	Location : Rural/Semi-urban/Urban	Rural
	*	Financial Status: Centrally funded/ state funded/Private (please specify)	Centrally Funded
	*	Name of the IQAC Co-ordinator/Director	Prof. (Dr.) J.S. Dhillon
	*	Phone no. /Alternate phone no.	01672-253168
	*	Mobile	+91 9779 828833
	*	IQAC e-mail address	iqac@sliet.ac.in
	*	Alternate Email address	jsdhillonp@yahoo.co.in
3		Website address	www.sliet.ac.in
		Web-link of the AQAR: (Previous Academic Year)	http://sliet.ac.in/wp-content/uploads/2020/02/aqar-report-2018-19-portraite.pdf
4		Whether Academic Calendar prepared during the year?	Yes
		if yes, whether it is uploaded in the Institutional website	Yes
		Weblink:	http://academic.sliet.ac.in/files/2019/06/2019-20-Academic-Calender-UG-PG-program-.pdf

5 Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1st	B	2.35	2012	10.03.2012 to 09.03.2017
2nd	B+	2.58	2017	30.10.2017 to 29.10.2022

6 Date of Establishment of IQAC 16/02/2013
DD/MM/YYYY

7 Internal Quality Assurance System

7.1 Quality initiatives by IQAC during the year for promoting quality culture

Item /Title of the quality initiative by IQAC	Date & duration	Number of participants/ beneficiaries
STTP on "Material Characterization and Analytical Techniques for Research Applications" (SLIET, Longowal)	1st July 2019 to 5th July 2019 (5 days)	14
STTP on "PLC Drives and Industrial Automation"	2nd March 2020 to 6th March 2020 (5 days)	20
STC on Analytical Techniques in the realm of Molecules & Materials	26th June 2020 to 30th June 2020 (5 days)	0
Materials Characterization & Analytical Techniques for Research Applications (MCATRA- 2019)	1st July 2019 to 5th July 2019 (5 days)	50
TEQIP- III Sponsored STTP on Materials Characterization and Analytical Techniques for Research Application	1st July 2019 to 5th July 2019 (5 days)	30
TEQIP- III sponsored 02-day workshop on Low and High-Frequency Designs using TaraNG:19.0	5th October, 2019 to 6th October, 2019 (2 days)	04
Organized a TEQIP- III Sponsored on-week short term training Programme on Nano-Electronics & VLSI Circuits and Systems	4th November, 2019 to 8th November 2019 (5 days)	46
TEQIP- III Sponsored STTP on Synthesis and Characterization of Multifunctional Materials held at NIT Uttrakhand, Srinagar Campus under twinning Programme	11th November 2019 to 15th November 2019 (5 days)	35
Faculty Development Programme under Universal Human Values	15th November 2019 to 17th November 2019 (5 days)	51
3D Printing & Design	9th December 2019 to 13th December 2019 (5 days)	49
Residential Faculty Development Programme on Student Induction under Universal Human Values	4th January 2020 to 10th January 2020 (5 days)	53
TEQIP- III Sponsored STTP on Advanced Functional Materials, Characterization & Applications was organized at MNIT Jaipur (Satellite Campus of NIT Uttrakhand) under twinning programme	29th February 2020 to 4th March 2020 (5 days)	27

Note: Some Quality Assurance initiatives of the institution are (Indicative list) :

- *Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback from all stakeholders collected, analysed and used for improvements*
- *Academic Administrative Audit (AAA) conducted and its follow up action*
- *Participation in NIRF*
- *ISO Certification*
- *NBA etc.*
- *Any other Quality Audit*

8 Provide the list of Special Status conferred by Central/ State Government UGC/CSIR/DST/DBT/ICMR/TEQIP/ World Bank/ CPE of UGC etc.

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount	
SLIET Longowal	TEQIP-III	National Project Implementation Unit (NPIU), (World Bank Project) New Delhi	12.04.2018 -30.09.2020 (Letter no. AC/ TEQIP-III/MHRD dated 12.04.2018)	Rs.7.00 Crore	

9 Whether composition of IQAC as per latest NAAC guidelines: Yes/No — Yes

*upload latest notification of formation — http://sliet.ac.in/internal-quality-assurance-cell-iqac/list-of-iqac-members/

10 No. of IQAC meetings held during the year — 02

The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website……. — Yes

(Please upload, minutes of meetings and action taken report) — http://sliet.ac.in/internal-quality-assurance-cell-iqac/minutes-of-iqac-meetings/

11 Whether IQAC received funding from any of the funding agency to support its activities during the year? — No

If yes, mention the amount: Year:

12 Significant contributions made by IQAC during the current year (maximum five bullets)

- To focus on outcome based education and NIRF ranking in SLIET, the Institute has initiated a new horizon (WAR ROOM CONCEPT) to strengthen various areas/activities in the Institute under eight pillars namely (1) Branding Perception (2) Outreach & Inclusivity (3) Research and Professional Practices (4) Graduation Outcome (5) Infrastructure Creation (6) Financial Parameters (7) Students Counselling and (8) Academic Excellence
- The Institute has developed Central Computing Facility under TEQIP-III having 108 computers
- The departments of the institute organized 21 conferences/seminars.
- The Institute organized 35 training programmes for Students.
- The Institute organized 11 workshop/seminars for faculty/staff of the Institute.
- 123 students of the Institute are already placed through Campus placement in well reputed companies

and the placement through campus is in progress.

- Gate-2020 Training provided to 266 students during July, 2019 to December, 2019 under TEQIP-III.

13 Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

Plan of Action	Achievements/Outcomes
Making provisions for No Due Certificate in the ERP meant for the students, leaving the Institute after completing their Degree	Could not finalized due to Covid-19, but in process and likely to be finalized in the Academic year 2020-21
Provision of Feedback Proforma using google form	Implemented
Sending Office orders, circulars within the Institute via email to save paper and environment	Implemented
Fee collection using online module	Could not finalized due to Covid-19, but in process and likely to be finalized in the Academic year 2020-21

14 Whether the AQAR was placed before statutory body? Yes

Name of the statutory body SENATE

Date of meeting(s) 28.04.2021 (Item No. 31.4)

15 Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to the functioning? NO

16 Whether institutional data submitted to AISHE: Yes/No Yes

Year: 2019-20 Date of Submission: 18.05.2020

17 Does the Institution have Management Information System?

Yes No **YES**

If yes, give a brief description and a list of modules currently operational. (Maximum 500 words)

Yes, the Institute has Management Information System (MIS), which is a piece-meal type of MIS and it is active in the following sections/Departments.

a) Central Library
b) Central Admission Cell
c) Examination Cell
d) Academics
Accounts Section
e) Store & Purchase Section

Part-B

Criterion I – Curricular Aspects			
1.1 Curriculum Design and Development			
1.1.1 Programmes for which syllabus revision was carried out during the Academic year			
Name of programme	Programme Code	Programme Specialization	Dates of revision
BE	GCS	Computer Science & Engineering	08.07.2019
BE	GEC	Electronics & Communication Engineering	08.07.2019
BE	GIN	Instrumentation & Control Engineering	08.07.2019
BE	GEE	Electrical Engineering	08.07.2019
BE	GCT	Chemical Engineering	08.07.2019
BE	GFT	Food Technology	08.07.2019
BE	GME	Mechanical Engineering (Manufacturing Engg.)	08.07.2019
BE	GWT	Mechanical Engineering (Welding Technology)	08.07.2019
M. Tech.	PG-MSE	Manufacturing Systems	08.07.2019
M. Tech.	PG-WLF	Welding and Fabrication	08.07.2019
M. Tech.	PG-FET	Food Engineering & Technology	08.07.2019
M. Tech.	PG-CSE	Computer Science & Engineering	08.07.2019
M. Tech.	PG-ICE	Instrumentation and Control	08.07.2019
M. Tech.	PG-ECE	Electronics and Communication	08.07.2019
M. Tech.	PG-CE	Chemical Engineering	08.07.2019
M.Sc.	PG-CHY	Chemistry	08.07.2019
M.Sc.	PG-MATH	Mathematics	08.07.2019
M.Sc.	PG-PHY	Physics	08.07.2019

1.1.2 Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year				
Programme with Code	**Programme specializaiton**	**Date of Introduction**	**Course with Code**	**Date of Introduction**
BE (GCS)	Computer Science &	27.06.2018	Principles of Management	08.07.2019

	Engineering		HSMC-501	
BE (GEC)	Electronics & Communication Engineering	27.06.2018	Principles of Management HSMC-501	08.07.2019
BE (GIN)	Instrumentation & Control Engineering	27.06.2018	Principles of Management HSMC-501	08.07.2019
BE (GEE)	Electrical Engineering	27.06.2018	Principles of Management HSMC-501	08.07.2019
BE (GCT)	Chemical Engineering	27.06.2018	Principles of Management HSMC-501	08.07.2019
BE (GFT)	Food Technology	27.06.2018	Principles of Management HSMC-501	08.07.2019
BE (GME)	Mechanical Engineering 3.(Manufacturing Engg.)	27.06.2018	Principles of Management HSMC-501	08.07.2019
BE (GWT)	Mechanical Engineering (Welding Technology)	27.06.2018	Principles of Management HSMC-501	08.07.2019

1.2 Academic Flexibility :

1.2.1 New programmes/courses introduced during the Academic year

Programme/Course	Date of introduction
BE - Extra Academic activity (Sports activities)	08.07.2019
BE - Extra Academic activity (Literary activities)	08.07.2019
BE - Extra Academic activity (Social activities)	08.07.2019

1.2.2 Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the University level during the Academic year

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BE	Computer Science & Engineering	08.07.2019
BE	Electronics & Communication Engineering	08.07.2019
BE	Instrumentation & Control Engineering	08.07.2019
BE	Electrical Engineering	08.07.2019
BE	Chemical Engineering	08.07.2019
BE	Food Technology	08.07.2019
BE	Mechanical Engineering (Manufacturing Engg.)	08.07.2019
BE	Mechanical Engineering (Welding Technology)	08.07.2019

1.3 Curriculum Enrichment:

1. Study schemes of UG and PG programs as per AICTE Model Curriculum 2018 applicable in SLIET, Longowal along with full syllabus/contents were finalized through the respective Board of studies.
2. Introduced credit for technical competency to enhance core competencies in the UG students.

3. Included fractional credit courses (Extra Academic activities) to give space to co-curricular activities.

1.3.1 Value-added courses imparting transferable and life skills offered during the year

Value added courses	Date of introduction	Number of students enrolled
English Communication and Soft Skills	27.06.2018	204
Environmental Studies	27.06.2018	204
Research Methodology and IPR	27.06.2018	92
English for Research Paper Writing and professional communication	27.06.2018	92
Constitution of India	27.06.2018	91

1.3.2 Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
--	--	--

1.4 Feedback System

1.4.1 Whether structured feedback received from all the stakeholders.

1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents
YES	YES	YES	YES	YES

1.4.2 How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words).

All the departments/concerned sections are obtaining feedback from all the stakeholders through google form thereafter, the data, received, is forwarded to Data Analytics Committee analyse the data related to feedback and put up its report to the Competent Authority for further improvement.

CRITERION II -TEACHING-LEARNING AND EVALUATION

2.1 Student Enrolment and Profile

2.1. 1 Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
B.E. (Lateral Entry)	Computer Science & Engineering	85	Group A : 517	85
B.E. (Lateral Entry)	Electronics & Communication Engineering	47		47
B.E. (Lateral Entry)	Electrical Engineering	39		39
B.E. (Lateral Entry)	Instrumentation & Control	59		42

	Engineering			
B.E. (Lateral Entry)	Mechanical Engineering (Manufacturing Engineering)	49	Group A : 269	49
B.E. (Lateral Entry)	Mechanical Engineering (Welding Technology)	59		59
B.E. (Lateral Entry)	Chemical Engineering	48	Group C : 180	48
B.E. (Lateral Entry)	Food Technology	64		61
B.E. (Direct Entry)	Chemical Engineering	29	Admission through JoSSA/ CSAB 2019	20
B.E. (Direct Entry)	Computer Science & Engineering	59		53
B.E. (Direct Entry)	Electronics & Communication Engineering	29		23
B.E. (Direct Entry)	Electrical Engineering	31		25
B.E. (Direct Entry)	Food Technology	29		13
B.E. (Direct Entry)	Instrumentation & Control Engineering	29		22
B.E. (Direct Entry)	Mechanical Engineering	74		62
M.Tech.	Chemical Engineering	13	06	0
M.Tech.	Computer Science & Engineering	20	15	09
M.Tech.	Electronics & Communication Engineering	20	07	03
M.Tech.	Food Engineering & Technology	14	53	19
M.Tech.	Instrumentation & Control Engineering	14	14	05
M.Tech.	Mechanical Engineering (Manufacturing Engineering)	22	16	06
M.Tech.	Mechanical Engineering (Welding Technology)	14	111	03
M.Sc.	Chemistry	25	10	22
M.Sc.	Physics	25	23	25
M.Sc.	Mathematics	25	21	23
M.B.A.	Master of Business Administration	38	23	07

2.2 Catering to Student Diversity

2.2.1. Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2019-20	1822	292	0	0	148

2.3 Teaching - Learning Process

2.3.1 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of teachers on roll	Number of teachers using ICT *(LMS, e-Resources)*	ICT tools and resources available	Number of ICT enabled classrooms	Number of smart classrooms	E-resources and techniques used
148	148	Desktop, laptops, LCD Projector, Digital cameras, Printer, Photocopier, tablets, Pen Drive, Microphones, Social Media, Visualizer, Smart Screen, Multi Media Projector, Smart class rooms, VCR, LCD, Plasma TV, Overhead Projector,	28	21	Google class room, smart classrooms, video lectures, lecture recording software, NPTEL. E-books, Animation videos, PPT, E-Journals, Databases and Open Access Resources, Anti Plagiarism software, Zoom, WhatsApp, D-Link, NDL, Online thesis & Dissertations, Online video lectures, Microsoft team, Power point presentation (Ppt), NPTEL, international e-resources, digital library, computer, MOOCS (Live & Archived), Skype

2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)

All the regular faculty of the institute are appointed as Mentor of a group of students including Diploma, Degree, PG and Ph.D. level students. The main purpose of this tutor-guardian-mentor scheme is to address the problems of the students related to academics, social, emotional, economic problems etc. and encourage them to participate in various academic and extracurricular events throughout the academic year. Students can discuss any kind of problems occurs during their study in SLIET campus with their respective mentors. One special slot has been fixed in central time of the institute for mentor mentee-based students monitoring system.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor: Mentee Ratio
2114	148	14.28

2.4 Teacher Profile and Quality

2.4.1 Number of full time teachers appointed during the year NIL

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D.
204	125	79	00	95

2.4.2 Honours and recognitions received by teachers

(received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of award	*Name of full time teachers receiving awards from state level, national level, international level*	*Designation*	*Name of the award, fellowship, received from Government or recognized bodies*
2019	Dr. Dhiraj Sud, Professor, Department of Chemistry, SLIET, Longowal	Professor	Prof.Kaza Somasekhara Rao Award- 2019 of Indian Council of Chemists for the Best Women Scientist in Chemistry
2019	Dr. Dhiraj Sud, Professor, Department of Chemistry, SLIET, Longowal	Prof.	Research Excellence Award under Excellent Author category by MT Research and Educational Services (MTRES)
2019	Dr. Surinder Singh, Professor, Department of Electronics and Communication Engineering, SLIET, Longowal	Professor	Cash awards of 22500/- for fetching Research Project from External agency at SLIET Longowal
2019	Dr. Manpreet Singh Manna, Associate Professor, Department of Electrical and Instrumentation Engineering, SLIET, Longowal	Associate Professor	Recognition by UNESCO, Bangkok on 24-25 Sep., 2019
2019	Dr. Arvind Jayant, Professor, Department of Mechanical Engineering, SLIET, Longowal	Professor (Mech. Engg.)	Selected as Visiting Professor under MHRD Scheme of STIF Secondment of Indian faculty in foreign Institution of Eminence
2020	Dr. Manmohan Singh, Associate Professor, Department of Electrical and Instrumentation Engineering, SLIET, Longowal and and Sh. J.P. Singh, Assistant Professor (Contract), department of Computer Science and Engineering, SLIET, Longowal	Associate Professor	By Government of India
2020	Dr. D C Saxena, Professor, Department of Food Engineering and Technology, SLIET, Longowal	Professor	Prof. Carl Hoseney Award-by AFST (India) for significant contribution to the development of Cereal Science and Technology

2.5 Evaluation Process and Reforms

2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
Integrated	ICD	1st Year(2019 Batch)	Exams. could not be	Students promoted based on

Certificate Diploma Program			held due to COVID-19	previous semesters performance. Results declared on 23.10.2020 & 24.10.2020.
		2nd Year (2018 Batch)	Exams. could not be held due to COVID-19	Students promoted based on previous semesters performance. Results declared between 23.10.2020 to 02.11.2020.
		3rd Year (2017 Batch) (6th Semester)	30.07.2020 (Online)	26.08.2020
Bachelor of Engineering Program	UG – B.E.	1st Year (2019 Batch)	Exams. could not be held due to COVID-19	Students promoted based on previous semesters performance. Results declared on 22.10.2020 & 23.10.2020
		2nd Year (2018 Batch including LEET)	Exams. could not be held due to COVID-19	Students promoted based on previous semesters performance. Results declared on 23.10.2020 & 24.10.2020.
		3rd Year (2017 Batch including LEET)	Exams. could not be held due to COVID-19	Students promoted based on previous semesters performance. Results declared on 26.10.2020 & 27.10.2020
		4th Year (2016 Batch including LEET) (8th Semester)	Online : - 1st Chance (26.06.2020) - 2nd Chance (31.07.2020)	- 17.07.2020 - 25.09.2020
Master of Science (Math, Physics & Chemistry)	PG–M.Sc.	1st Year (2019 Batch)	Exams. could not be held due to COVID-19	Students promoted based on previous semesters performance. Results declared on 23.10.2020.
		2nd Year (2018 Batch) (4th Semester)	Online : - 1st Chance (26.06.2020) - 2nd Chance (31.07.2020)	- 17.07.2020 - 28.08.2020 (Maths) 01.09.2020 (Physics) 24.11.2020 (Chemistry)
Master of Business Admn.	MBA	1st Year (2019 Batch)	Exams. could not be held due to COVID-19	Students promoted based on previous semesters performance. Results declared on 23.10.2020
		2nd Year (2018 Batch) (4th Semester)	Online : - 31.07.2020	29.10.2020
Master of Technology	M.Tech.	1st Year (2019 Batch)	Exams. could not be held due to COVID-19	Students promoted based on previous semesters performance. Results declared on 23.10.2020.
		2nd Year (2018 Batch) (4th Semester)	4th Semester is on "Thesis Work". Due to COVID-10, last date for submission of Thesis work has been extended to 30.06.2021.	Not applicable

2.5.2 Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year : **The answer sheets are shown to the students before submission of grades.**

**Do not include re-evaluation/ re-totalling*

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
--	--	--

2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink) www.sliet.ac.in

http://chm.sliet.ac.in

http://mech.sliet.ac.in

http://cen.sliet.ac.in

http://physics.sliet.ac.in

http://fet.sliet.ac.in/

http://maths.sliet.ac.in

http:// eie.sliet.ac.in/

http://ece.sliet.ac.in/

http:// cs.sliet.ac.in

http:// http://ct.sliet.ac.in/

http://mh.sliet.ac.in

2.6.2 Pass percentage of students

Programme Code	Programme name	Number of students appeared in the final year examination	Number of students passed in final Semester /year examination	Pass Percentage
UG – B.E.	Bachelor of Engineering Program	Online : 1st Chance = 430 2nd Chance = 85	- 430 - 85	- 100% - 100%
PG – M.Sc.	Master of Science (Math, Physics & Chemistry)	Online : 1st Chance = 07 students of Physics opted only 2nd Chance = 11 (Physics) 15 (Maths) 18 (Chemistry)	- 07 11 (Physics) 15 (Maths) 16 (Chemistry) (Viva pending of two students)	- 100% - 100%

PG – MBA	Master of Business Admn.	12 (Online)	12	100 %
PG – M.Tech.	Master of Technology Program	4th Semester is on "Thesis Work". Due to COVID-10, last date for submission of Thesis work has been extended to 30.06.20201		

2.7 Student Satisfaction Survey

2.7.1 Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

The feedback of students is collected by the respective departments/sections and is analysed by the Data Analytics Committee.

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 Promotion of Research and Facilities

3.1.1 Teachers awarded National/International fellowship for advanced studies/ research during the year

	Name of the teacher awarded the fellowship	Name of the Award	Date of Award	Awarding Agency
National	NIL	NIL	NIL	NIL
International	NIL	NIL	NIL	NIL

3.1.2 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other fellows in the Institution enrolled during the year = 80 (JRF -33 & SRF = 47)

Name of Research fellowship	Duration of fellowship (in days)	Funding agency
Junior Research Fellowship (JRF)	1095	QIP, AICTE
Junior Research Fellowship (JRF)	1095	NDF, AICTE
Junior Research Fellowship (JRF)	730	CSIR
Senior Research Fellowship (SRF)	1095	CSIR
Junior Research Fellowship (JRF)	730	Industry Sponsored
Junior Research Fellowship (JRF)	730	UGC
Senior Research Fellowship (SRF)	1095	UGC
Junior Research Fellowship (JRF)	730	DST
Senior Research Fellowship (SRF)	1095	DST
Junior Research Fellowship (JRF)	730	SLIET, Longowal
Senior Research Fellowship (SRF)	1095	SLIET, Longowal
Junior Research Fellowship (JRF)	730	TEQIP through SLIET
Senior Research Fellowship (SRF)	1095	TEQIP through SLIET

3.2 Resource Mobilization for Research				
3.2.1 Research funds sanctioned and received from various agencies, industry, and other organisations				
Nature of the Project	Duration In days	Name of the funding Agency	Total grant sanctioned	Amount received during the year
Major projects	1095	CSIR	Rs. 28, 27,000/-	Rs. 11, 89,167/-
Major projects	730	ASEAN- India Collaborative R&D Scheme under ASEAN-India S&T Development Fund (AISTDF), SERB, DST, New Delhi		
Major projects	730	AICTE	Rs. 11, 82, 500/-	
Major projects	730	AICTE	Rs. 11, 10, 000/-	
Major projects	730	GOI, Ministry of Science and Technology, DST (International Bilateral Cooperation Division)		
Major projects	1095	AICTE	Rs. 25,00,000/-	
Major projects	1095	AICTE	Rs. 16,00,000/-	
Major projects	1095	AICTE	Rs. 17,00,000/-	
Major projects	1825	GOI, DST, R&D Infrastructure Division	Rs. 61,00,000/-	
Major projects	1095	AICTE	Rs. 25,00,000/-	22,50,000/-
Major projects	1095	DST, SERB, Collaborative research project		
Major projects	1095	Ministry of Science and Technology, Department of Biotechnology in Association with PSCST	Rs. 94,50,000/-	
Minor Projects	180	Federation of Indian Chambers of Commerce and Industry (FICCI), New Delhi	Rs. 4,00,000/-	Rs. 4,00,000/-
Minor Projects	180	Punjab State Council for Science and Technology, Chandigarh with the support of Biotechnology Industry Research Assistance Council (BIRAC), DBT- GOI	Rs. 1, 80, 000/-	Rs. 1, 80, 000/-
Interdisciplinary Projects	730	ASEAN- India Collaborative R&D Scheme under ASEAN-India S&T Development Fund (AISTDF), SERB, DST, New Delhi		
Interdisciplinary Projects	1095	DST, SERB, Collaborative research project		
Interdisciplinary Projects	730	GOI, Ministry of Science and Technology, DST (International Bilateral Cooperation Division)		
Project Sponsored by the University	180	Sponsored by Institute from TEQIP- III funds	Rs. 2, 10, 000/-	Rs. 2, 10, 000/-
Project Sponsored by the University	180	Sponsored by Institute from TEQIP- III funds	Rs. 2, 03, 000/-	
Project Sponsored by the University	180	Sponsored by Institute from TEQIP- III funds	Rs. 1, 00, 000/-	
Project Sponsored by the University	180	Sponsored by Institute from TEQIP- III funds	Rs. 1,00,000/-	
Project Sponsored by the University	180	Sponsored by Institute from TEQIP- III funds	Rs. 1,00,000/-	Rs. 1, 00, 000/-
Students Research Project *(other*	180	Sponsored by Institute from	Rs. 40,800/	

than compulsory by the University)		TEQIP- III funds		
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 44,600/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 22,000/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 20,000/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 8,950/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs.37,100/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 39, 064/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 49,810/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 40,500/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 49, 240/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 42,000/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 47, 800/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 33, 276/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 74, 250/	
Students Research Project *(other than compulsory by the University)*	180	Sponsored by Institute from TEQIP- III funds	Rs. 41, 500/	
International Project	730	ASEAN- India Collaborative R&D Scheme under ASEAN-India S&T Development Fund (AISTDF), SERB, DST, New Delhi	Rs. 20, 75, 696/-	Rs. 10, 17, 848/-
International Project	1095	DST, SERB, Collaborative research project	Rs. 20, 70, 628/-	6, 58, 914/-
International Project	730	GOI, Ministry of Science and Technology, DST (International Bilateral Cooperation Division)		
Total			**Rs. 3, 71, 48, 386/-**	**Rs. 60, 05, 929/-**

3.3 Innovation Ecosystem
3.3.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices

during the year		
Title of Workshop/Seminar	Name of the Dept.	Date(s)
"Overview of Tyre Technology" delivered by Sh. Ravi Shankar of Ralson India Ltd., Ludhiana	Mechanical Engineering	7th February 2020
"Industrial Applications of Rapid Prototyping and Additive Manufacturing" was delivered by Er. A.P. Singh, GM, CTR, Ludhiana	Mechanical Engineering	13th December 2019.
"Automation in Welding Technology" delivered by Er. Harpreet Singh Bhui, Director, Brahm Engineers, Mohali on	Mechanical Engineering	16th October 2019
"3-D printing and Design Technology" delivered by Er. Dakshina Ranjan, Vice President, Kangaroo Industries, Ludhiana	Mechanical Engineering	9th December 2019.
Human Authentication	Prof. Klimis Ntalianis, University of West Attica, Athens, Greece	26-11-2019
Use of Machine Learning and Optimization to solve real life processes	Prof. Vijay Mago, Lakehead University, Canada	17-12-2019
KRBL Limited	Chemical Engineering	11-11-2019
Kuantum papers Ltd.	Chemical Engineering	06-11-2019
Entrepreneurship Awareness camp	Management and Humanities	13/02/2020 to 15/02/2020
Entrepreneurship Awareness camp	Management and Humanities	26/09/2019
Workshop on Entrepreneurship	Management and Humanities	02/08/2019 -03/08/2019
Workshop on Opportunities in Food Engineering Sector	Management and Humanities	07/11/2019

Workshop on Opportunities in Chemical Engineering Sector	Management and Humanities	24/02/ 2020
Webinar on EDP Ajeet Yadav Co-founder DIGITIZE	Management and Humanities	01/05/ 2020

3.3.2 Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of the Awardee	Awarding Agency	Date of Award	Category
Best Track Paper award	Mr. Ankesh Mittal PhD. Research Scholar	International Conference on Industrial Engineering and Operations Management, Dubai, UAE	March 10-12, 2020	Research paper Publication
SLIET Quality Publication Award (SQPA)	Mr. Jastej Singh, Ph.D. Research Scholar (Regd. No. PME/1503)	Sant Longowal Institute of Engineering and Technology (SLIET), Longowal Punjab.	January 26, 2020	The award carries a Certificate of appreciation along with Cash prize of ₹5000/-.
Young Scientist Award	Mr. Jastej Singh, Ph.D. Research Scholar (Regd. No. PME/1503)	Punjab Academy of Sciences, Patiala, Punjab, in Section-D (Engineering Sciences) for Year 2019 at 23rd Punjab Science Congress held at SLIET Longowal,	February 7-9, 2020.	The award carries a Medal, a Certificate of merit and Cash prize of ₹7500/-.
Gradient Simulator Award (Advance Category) and Utility Demonstration Award (Advance Category	SLIET team "Green Rangers 2019	Society of Automotive Engineers Northern India section (SAE-NIS) held at Lovely Professional University (LPU),	01-05th October, 2019	Participated in 10th season of "Efficycle 2019" – a student competition of Society of Automotive Engineers Northern India section (SAE-NIS) held at Lovely Professional University (LPU), Jalandhar during
'Pride of Punjab' award.	SLIET team 'Junkyard Warriors 2020'	BAJA SAE INDIA and Chitkara University, Chandigarh	5-9th March, 2020	Participated in 13th season of BAJA SAE INDIA 2020 for display of design and development of an All-Terrain Vehicle (ATV), organized at Chitkara University, Chandigarh
Design Evaluation –	SLIET Team	Kari Motor Speedway,	February 10-	Participated in 7th Go

1st Disassemble Test – 2nd Acceleration – 4th Skid-pad – 3rd Endurance – 4th OVERALL – 3RD Team Best Captain Award	'JUGGERNAUTS'	Coimbatore, Tamil	14, 2020	Kart Design Challenge (GKDC) Season, 2019-20, at Kari Motor Speedway, Coimbatore, Tamil
1st Prize in Smart India Hackathon-2020	Ankit Kumar, Amitoj Singh Ahuja, Naman Singh, Siddharth Kumar, Ridham Goyal, Shrejal Singh	Government of India	June 2020	
Design of titanium nitride coated PCF-SPR sensor for liquid sensing applications	Veerpal Kaur	SLIET	15/08/2019	Research Excellence Award
Design approach of solid-core photonic crystal fiber sensor with sensing ring for blood component detection	Veerpal Kaur	SLIET	15/08/2019	Research Excellence Award
Neural engine for prediction of loan and real-time risk assessment	Louis Pegu, Karan Brahma, Rajan, and Nitesh Sawadia	Synd Innovate 2019	27-02-2020	Financial Technology

3.3.3 No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Centre	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement

3.4 Research Publications and Awards

3.4.1 Ph. Ds awarded during the year (Awarded in Convocation held on 07.03.2020)

Name of the Department	No. of Ph. Ds Awarded
Chemistry	03
Physics	02
Mathematics	03
Management & Humanities	03

Chemical Engineering	01
Computer Science & Engineering	01
Electrical Instrumentation & Control Engineering	06
Electronics & Communication Engineering	02
Food Engineering & Technology	06
Mechanical Engineering	08
TOTAL	35

3.4.2 Research Publications in the Journals notified on UGC website during the year

	Department	No. of Publication	Average Impact Factor if any
National	FOOD EGG. & TECH.	4	1.65
National	Management & Humanities	05	0
International	Chemical Engg.	08	2.674
International	Chemistry	23	2.09
International	Mech. Engg.	72	0.977
International	Physics	27	2.14
International	FOOD EGG. & TECH.	24	4.98
International	Mathematics	03	0
International	ECE	08	2.05
International	Computer Science and Engineering	15	1.71
International	Management & Humanities	10	0

3.4.3 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	No. of publication
Chemistry	04
Chemical Engg.	08
Mech. Engg.	09
Physics	12
FOOD EGG. & TECH.	10

EIE	02
ECE	02
Computer Science and Engineering	04

3.4.4 Patents published/awarded during the year

Patent Details	Patent status Published/Filed	Patent Number	Date of Award
Multi Point Tapper for Pressurizing and Holding Piezoelectric Element Chemistry	Filed	Design Patent Application Reference No. 325941-001 Dated 15/01/2020	Filed on: 15/01/2020
Cross- linked biopolymer composition and a method of preparation thereof	Filed	202011009169	3/3/2020
Regenerative Electromagnetic Shock Absorber	Submitted	4077/MUM/2015	30th June 2020

3.4.5 Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the paper	Name of the author	Title of the journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citations
Effect of different elemental chlorine free bleaching sequences on pulp and effluent properties and their impact on index of global pollution	Tripathi, S.K., Bhardwaj, N.K., and Ghatak H.R.	Environmental Science and Pollution Research	2020	SCI	SLIET Longowal	0
Developments in ozone-based bleaching of pulps	Tripathi, S.K., Bhardwaj, N.K., and Ghatak H.R.	Ozone: Science and Engineering	2020	SCI	SLIET Longowal	2
Improvement in selectivity of ozone bleaching using DTPA as carbohydrate protector for wheat straw pulp	Tripathi, S.K., Bhardwaj, N.K., and Ghatak H.R.	Nordic Pulp and Paper Research Journal	2019	SCI	SLIET Longowal	1
Adsorptive finding on selective biomass for removal of Phenol from aqueous solutions	Jha, Pushpa	Resources, 8(4), 180; 2019	2019	SCI	SLIET Longowal	1
Recent developments on sustainable solvents for emulsion liquid membrane processes	Anil Kumar, Avinash Thakur, and Parmjit Singh Panesar	Journal of Cleaner Production	2019	SCI	SLIET Longowal	3
Statistical optimization of lactic acid extraction using green solvent and mixed extractants (TOA and TOMAC	Anil Kumar and Avinash Thakur	Chemical Engineering Research Bulletin	2019	SCI	SLIET Longowal	0
Lactic acid and its separation and	Anil Kumar, Avinash Thakur,	in Environmental Science and Bio/ Technology	2019	SCI	SLIET Longowal	6

purification techniques: A Review	and Parmjit Singh Panesar					
Reactive Extraction of Lactic Acid using Environmentally Benign Green Solvents and Synergistic Mixture of Extractants	Anil Kumar and Avinash Thakur	Scientia Iranica, 26(6):3456-3467	2019	SCI	SLIET Longowal	27
Fabrication of calcium hydroxyapatite incorporated polyurethane-graphene oxide nanocomposite porous scaffolds from poly (ethylene terephthalate) waste: A green route toward bone tissue engineering	Amandeep Singh; Sovan Lal Banerjee; Vandana Dhiman; Sanjay Kumar Bhadada; Priyatosh Sarkar; Moumita Khamrai; Kamlesh Kumari; Patit Paban Kundu,	Elsevier Scopus	2020	SCI	SLIET Longowal	2
An unconstrained and effective approach of script identification for online bilingual handwritten text	Gurpreet Singh, Manoj Kumar Sachan	National Academy Science Letters	January 2020	0	SLIET Longowal	0
SentiVerb system: classification of social media text using sentiment analysis	Shailend ra Kumar Singh, Manoj Kumar Sachan	Multimedia Tools & Applications	Novemb er 2019	4	SLIET Longowal	3
Simultaneous feature weighting and parameter determination of neural networks using ant lion optimization for the classification of breast cancer	Dalwinder Singh, Birmohan Singh, Manpreet Kaur	Biocybernetics and Biomedical Engineering	January-March 2020	1	SLIET Longowal	1
Flexible fault tolerance in cloud through replicated cooperative resource group	Moin Hasan, Major Singh Goraya	Computer Communications	Septemb er 2019	2	SLIET Longowal	2
A Survey and Taxonomy on Energy Management Schemes in Wireless Sensor Networks	Jaspreet Singh, Ranjit Kaur, Damanpreet Singh	Journal of Systems Architecture	May 2020	2	SLIET Longowal	2
Satisfaction aware QoSbased bidirectional service mapping in cloud environment	Neeraj Yadav, Major Singh Goraya, Damanpreet Singh	Clusture Computing	February 2020	2	SLIET Longowal	2
An energy efficient scalable clustering protocol for dynamic wireless sensor networks	Harmanpreet Singh, Damanpr eet Singh	Wireless Personal Communications	August 2019	0	SLIET Longowal	0
An energy-efficient cloud system with novel dynamic resource allocation methods	Chao- Tung Yang, Shuo-Tsung Chen, Jung- Chun Liu, Yu- Wei Chan,	The Journal of Supercomputing	August 2019	2	SLIET Longowal	2

	Chien- Chih Chen, Vinod Kumar Verma					
Real-time inclusive investigations for the selection of servo drive system of CNC machining centers	Kuldeep Verma, R.M. Belokar, Vinod Kumar Verma, Klimis Ntalianis	Journal of the Brazilian Society Of Mechanical Sciences and Engineering	2020	0	SLIET Longowal	0
Computer aided face liveness detection with facial thermography	Manmind er Singh, Ajat Shatru Arora	Wireless Personal Communications	Decemb er 2019	0	SLIET Longowal	0
GRT: Gurmukhi to Roman transliteration system using character mapping and handcrafted rules	Manoj Kumar Sachan, Shailend ra Kumar Singh	International Journal of Innovative technology and Exploring Engineering	July 2019	0	SLIET Longowal	0
Implementation of a software-defined storage service with heterogeneous storage technologies	Chao-Tung Yang, Shuo-Tsung Chen, Wei-Hsiang Lien and Vinod Kumar Verma	Journal of Internet Services And Information Security	Septemb er 2019	0	SLIET Longowal	0
A Ranking Based Model for Selecting Optimum Cloud Geographical Region	Neeraj, Major Singh Goraya, and Damanpr eet Singh	International Journal of Innovative Technology and Exploring Engineering	August 2019	2	SLIET Longowal	1
VM Selection and Allocation Policy to Optimize VM Migration in Cloud Environment	Neha Garg, Damanpreet Singh, Major Singh Goraya	Internatio nal Journal of Recent Technolo gy and Engineer ing	July 2019	0	SLIET Longowal	0
A review on retinal blood vessel segmentation methodologies	Aastha, Rahul Gautam	Internatio nal Journal of Scientific & Technolo gy Researc h	Septemb er 2019	0	SLIET Longowal	0
Tailoring of Electromagnetic Absorption in Substituted Hexaferrites from 8.2 GHz to 12.4 GHz	Anupma Marwaha ,Harsimrat Kaur, ,Charanjeet Singh , Sukhleen Bindra Narang, Rajshree Jotania,Yang Bai, Sanjay R. Mishra,	Journal of Electronic Materials	2020	WOS	SLIET Longowal	02

	Dharmendra Singh, A.S.B. Sombra, Madhav Ghimire, And Preksha Dhruv					
Optimized null steering in compact bowtie antenna array using simulation driven Taguchi method	Anupma Marwaha , Baljinder Kaur	Journal of Metrology and Measurement Systems	2020	WOS	SLIET Longowal	NIL
Modelling and simulation of vertical fin style aluminum heat sink for controlled thermal compensation in absorber loaded antenna array	Surekha Rani, Anupma Marwaha, Sanja y Marwaha	Journal of communication technology and electronics, Springer	2020	WOS	SLIET Longowal	NIL
Nanocomposite graphene based tunable absorber for combating electromagnetic pollution	Surekha Rani, Anupma Marwaha, Sanja y Marwaha	Current Nanoscience, Bentham Science Publisher	2020	WOS	SLIET Longowal	NIL
Graphene based Multiband Frequency Antipodal Vivaldi Nanoantenna for UWB Applications	Gaurav Bansal, Anupma Marwaha, Amanpreet Singh, Rajni Bala, Sanjay Marwaha	Journal of Computational Electronics	2020	WOS	SLIET Longowal	NIL
A triband slotted bow-tie wideband THz antenna design using graphene for wireless applications	Gaurav Bansal, Anupma Marwaha , Amanpreet Singh, Rajni Bala, Sanjay Marwaha	Optik	2019	WOS	SLIET Longowal	6
Investigation of structural, hysteresis and electromagnetic parameters for microwave absorption application in doped Ba–Sr hexagonal ferrites at X-band	Harsimrat Kaurab, AnupmaMarwah aa , CharanjeetSingh, Sukhleen Bindra Narang, Rajshree Jotania, Silvia Jacobo, A.S.B.Sombra, S.V.Trukhanov, A.V.Trukhanov, Preksha Dhruv	Journal of Alloys and Compounds	2019	WOS	SLIET Longowal	9
Synthesis and Validation of a Cu Meta-Based Wideband Microwave Absorber on an Antenna Array	Surekha Rani, Anupma Marwaha, Sanjay Marwaha, Sukhleen Bindra, Murthy Chavali & P. Narasimha Reddy	Journal of Electronic Materials	2019	WOS	SLIET Longowal	NIL
Design of titanium nitride coated PCF-SPR sensor for liquid sensing applications	Veerpal Kaur and Surinder Singh	Optical Fiber Technology	2019	WOS	SLIET Longowal	24

Design approach of solid-core photonic crystal fiber sensor with sensing ring for blood component detection	Veerpal Kaur and **Surinder Singh**, ""	Journal of Nanophotonic	2019	WOS	SLIET Longowal	04
Possibilities of laser amplification and measurement of the field structure of ultrashort pulses in the range of 2.7 - 3 μm in erbium-ion-doped tellurite glass fibres	Elena Anashkina, Vitaly Dorofeev, S.V. Muravyev, Sergei Motorin, Aleksei Vyacheslavovich Andrianov, Arseny A Sorokin, Maksim Koptev, Surinder Singh, and Arkady Kim	Quantum Electronics	2019	WOS	SLIET Longowal	04
Design of XPM based all optical contention detection circuit at 120 Gbps"	Dilbag Singh, **Surinder Singh**, Vishal Sharma, Sukhbir Singh and Quang Minh NGO,	Optical and Quantum	2019	WOS	SLIET Longowal	NIL
Design of all optical contention detection circuit based on HNLF at the data rate of 120 Gbps	Surinder Singh, Dilbag Singh, Vishal Sharma, Sukhbir Singh and Quang Minh NGO	Optical Fiber Technology	2019	WOS	SLIET Longowal	NIL
340-Gb/s PoISK-DP-DQPSK optical orthogonal modulation format with coherent direct detection foe high capacity WDM optical network"	Sukhbir Singh, Surinder Singh, Quang Minh NGO and Amin Malekmohammadi,	Optical Fiber Technology	2019	WOS	SLIET Longowal	02
Reconstruction of optical pulse intensity and phase based on SPM spectra measurements in microstructured tellurite fiber in telecommunication range.	E. A. Anashkina, Maxim Koptev, Alexey Andrianov, Vitaly V. Dorofeev, Surinder Singh, Lovkesh Bhatia, Gerd Leuchs, and Arkady Kim	Journal of Lightwave Technology	2019	WOS	SLIET Longowal	06
Design and analysis of CNTFET based 10T SRAM for high performance at nanoscale	M Kumar, JS Ubhi	International Journal of Circuit Theory and Application	2019	WOS	SLIET Longowal	02
Low leakage zero ground bounce noise nanoscale full adder using source biasing technique	Candy Goyal, Jagpal Singh Ubhi, and Balwinder Raj,	Journal of nanoelectronics & optoelectronics	2019	WOS	SLIET Longowal	NIL
A low leakage TG-CNTFET–based inexact full adder for low power image processing applications.	Goyal C, Ubhi JS, Raj B	International journal of circuit theory and applications	2019	Scopus	SLIET Longowal	01

A survey on QoS mechanisms in WSN for computational intelligence based routing protocol	Kaur, T. and Kumar, D.	Wireless Networks	2020	WOS	SLIET Longowal	08
FPS-MAC: Fuzzy priority scheduling-based MAC protocol for intelligent monitoring systems	Kaur, T. and Kumar, D.	International Journal of Communication Systems	2020	WOS	SLIET Longowal	NIL
Noninvasive Temperature Measuring and Early Fault Detecting System for Manufacturing Industry	Kumar, D., Suman, K.G.	Mapan - Journal of Metrology Society of India	2019	WOS	SLIET Longowal	NIL
Performance enhancement of traffic information gathering (PEnTInG) algorithm for vehicular ad-hoc networks	Kumar, R., Kumar, D., Kumar, D.	International Journal of Communication Systems	2019	WOS	SLIET Longowal	NIL
ETPS-MAC: Energy Traffic Priority Scheduling-based QoS-aware MAC protocol for hierarchical WSNs	Kaur, T., Kumar, D.	International Journal of Electronics	2019	WOS	SLIET Longowal	01
Computational intelligence-based energy efficient routing protocols with QoS assurance: A survey	Kaur, T. and Kumar, D.	International Journal of Wireless and Mobile Computing	2019	WOS	SLIET Longowal	05
QoS mechanisms for MAC protocols in wireless sensor networks: A survey	Kaur, T. and Kumar, D.	IET Communications	2019	WOS	SLIET Longowal	03
Hybrid intelligence based routing protocols in wireless sensor networks: A survey	Kaur, T. and Kumar, D.	International Journal of Sensors, Wireless Communications and Control	2019	WOS	SLIET Longowal	01
On the Design of a Novel Fractal Antenna for Spectrum Sensing in Cognitive Radio	Monika Aggarwal and Amar Partap Singh Pharwaha	Applied Computational Electromagnetics Society Journal (ACES)	2019	WOS	SLIET Longowal	NIL
On the development of a modified Triangular patch antenna array for 4.9 GHz Public Safety WLAN	Gurmeet Singh, AP Singh	Advanced Electromagnetics	2019	Scopus Indexed	SLIET Longowal	1
On the Design of 2×2 MIMO Fractal Antenna Array for C band applications	Gurmeet Singh, A.P. Singh	Jounal (International Journal of Innovative Technology and Exploring Engineering)	2019	Scopus	SLIET Longowal	NIL
Design of micro-machined modified Sierpinski gasket fractal antenna for satellite communications	Ashish Kumar, Amar Partap Singh	International Journal of RF and Microwave Computer-Aided Engineering	2019	WOS	SLIET Longowal	4
Detection of Foreign Materials in Wheat Kernels using Regional Texture Descriptors	N. Julka and A. P. Singh	International Journal of Recent Technology and Engineering	2019	Scopus	SLIET Longowal	NIL

Machine vision based detection of foreign material in wheat Kernels using shape and size descriptors	N. Julka and A. P. Singh	International Journal of Advanced Science and Technology	2019	Scopus	SLIET Longowal	NIL
Detection of Foreign Materials in Wheat Kernels using Boundary Descriptors	N. Julka and A. P. Singh	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	2020	Scopus	SLIET Longowal	NIL
Development of a Modified Hilbert Curve Fractal Antenna for Multiband Applications	Ashwini Kumar, Amar Partap Singh Pharwaha	IETE Journal of Research	2020	WOS	SLIET Longowal	NIL
Product Strategies by Small Retailers in Punjab,	Pankaj Kumar, Sanjeev Bansal, Mahesh Arora & Kirna Rani	International Journal of Scientific & Technology Research	2019	0	SLIET Longowal	0
Creating Employment in some Indian Industries by reducing the working shift timing	Anil Kumar, Renu, Sanjeev Bansal	IOP Conference Series: Materials Science and Engineering	2020	0	SLIET Longowal	0
influence of Social Media on consumer purchase intention	Renu, Sanjeev Bansal, Vandana Gupta	International Journal of Scientific & Technology Research	2020	0	SLIET Longowal	0
Marketing, Mobile and future of Mobile Advertisement: Life Changing through Mobile	Bharti, Sanjeev Kumar Garg & Mandeep Ghai	Psychosocial: International Journal of Psychosocial Rehabilitation	2019	0	SLIET Longowal	0
Autobiographical Elements And Construction of Self In Plays of Mahesh Dattani,	Monika Kapil and Mahesh Kumar Arora	Think India Journal	2019	0	SLIET Longowal	0
Mahesh Dattani's Final Solutions: A Peep into the Mannerism of Men and Women, and Their Diasporic Identity,	Monika Kapil and Mahesh Kumar Arora	, Alochana Chakra Journal	2020	0	SLIET Longowal	0
Role of Industry-Institute Interaction To Promote Education And Entrepreneurship	Kirna Rani, Sanjeev Bansal, Pankaj Kumar	Think India Journal	2019	0	SLIET Longowal	0
A Study of Financial Challenges Faced By Small Entrepreneurs in India	Kirna Rani, Sanjeev Bansal, Pankaj Kumar	Our Heritage Journal	2019	0	SLIET Longowal	0
Impact of Training Programs on the Performance of Employees of Banking Sector: A Review	Manuja Garg, Sanjeev Bansal	Our Heritage Journal	2019	0	SLIET Longowal	0
Goods and Service tax in India-Issues and Challenges	Seema Jain, Pawan Kumar Dhiman	Journal of Information and Computational Science (China) Zhongshan Daxue University	2019	0	SLIET Longowal	0
Public Transport System-A Boon to National Development	Pawan Kumar Dhiman, Seema Jain	Journal of Gujarat Research Society	2019	0	SLIET Longowal	0
A Study of Consumer Behaviour on Selecting	Sanjeev Kumar Garg and	International Journal of 360 Degree Management Review	2019	0	SLIET Longowal	0

and Switching Telecom Services in Patiala City	Gurpreet Sandhu					
Advertisement and its Influence on Consumer Behaviour: An analysis reference to FMCG products	Bharti, Garg, Sanjeev Kumar and Mandeep Ghai	Studies in Indian Place Names	2020	0	SLIET Longowal	0
Factors Affecting Consumer Purchase Intention for Organic Food : A Review	Pardeep Kumar Jain	Alochana Chakra Journal	2019	0	SLIET Longowal	0
A conglomerated ion-motion and crisscross search optimizer for electric power load dispatch	Mohit Kumar and **J.S. Dhillon**	Applied Soft Computing Journal, vol. 83, 2019, 105641, ISSN: 1568-4946	2019	3	SLIET Longowal	2
Profit based unit commitment using memetic binary differential evolution algorithm	Jatinder Singh Dhaliwal**, J.S. Dhillon**	Applied Soft Computing Journal, vol. 81, 2019, 105502, ISSN: 1568-4946	2019	6	SLIET Longowal	5
Multi-objective combined heat and power unit commitment using particle swarm optimization	Himanshu Anand, Nitin Narang and **J.S. Dhillon**	Energy, Vol. 172, 2019, pp.794-807, ISSN: 0360-5442, IF 4.968	2019	17	SLIET Longowal	14
Ameliorated grey wolf optimization for economic load dispatch	Diljinder Singh and **J.S. Dhillon**	Energy, Vol 169, 2019, pp. 398-419, ISSN: 0360-5442, IF 4.968	2019	31	SLIET Longowal	24
Design and Analysis of a New Improved Force Linear Switched Reluctance Motor for Transit Application	N Prasad, **S Jain**, S Gupta	IETE Journal of Research, 1-14, 2019	2019	2	SLIET Longowal	1
Measurement and Optimization of Performance Parameters of Linear Switched Reluctance Motor Using Finite Element Method	N Prasad, **S Jain**, S Gupta	MAPAN, 1-9, 2019	2019	1	SLIET Longowal	0
Electrical Components of Maglev Systems: Emerging Trends	N Prasad, **S Jain**, S Gupta	Urban Rail Transit, 1-13, 2019	2019	5	SLIET Longowal	4
SEIG-based renewable power generation and compensation in MVDC ship power system	K Tandekar, A Ojha, S Das, P Swarnkar, **S Jain**	international Transactions on Electrical Energy Systems 29 (4), e2785, 2019	2019	3	SLIET Longowal	2
Five-Level Cascaded H-Bridge MLC-Based Shunt Active Power Filter for Active Harmonics Mitigation in Distributed Network	J Tandekar, A Ojha, **S Jain**	Journal of Circuits, Systems and Computers 28 (02), 1950035, 2019	2019	3	SLIET Longowal	2
Automated approaches for ROIs extraction in medical thermography: a	Jaspreet Singh, **Ajat Shatru Arora**	Multimedia Tools and Applications, Jan 2019. DOI: 10.1007/s11042-018-7113-z	2019	4	SLIET Longowal	3

review and future directions						
Recognition of Underlying Causes of Power Quality Disturbances Using Stockwell Transform	Rajat Kumar, **Raj Kumar**, **Sanjay Marwaha**, Bhim Singh	IEEE Transactions on Instrumentation & Measurement, pp. 1-10, 2019	2019	4	SLIET Longowal	2
A triband slotted bow-tie wideband THz antenna design using graphene for wireless applications	Bansal, G., Marwaha, A., Singh, A., Bala, R., **Marwaha, S**.	Optik, 2019	2019	6	SLIET Longowal	5
Synthesis and Validation of a Cu Meta-Based Wideband Microwave Absorber on an Antenna Array	Rani, **S.,** Marwah a, A., **Marwaha, S**.,Chavali, M., Reddy, P.N.	Journal of Electronic Materials, 2019	2019	1	SLIET Longowal	0
Investigation of Influence of Rotor Geometry on Cogging Torque in Combined Axial Flux Permanent Magnet Synchronous Motor	Gurmeet Singh, Sanjay Marwaha, Ajat Shatru	International Journal of Engineering and Technology (UAE), ISSN: 2227-524X, 2019, Scopus Indexed	2019	1	SLIET Longowal	0
Comprehensive Controller Implementation for Wind-PV-Diesel based Standalone Microgrid	M. Rezkallah, **Sanjeev Singh**, A. Chandra, M. Saad, B. Singh, M. Tremblay and H. Geng	IEEE Transactions on Industry Applications, vol. 55, no. 5, pp. 5416-5428, Sept.-Oct. 2019	2019	4	SLIET Longowal	3
Impact of Harmonics on Power Transformer Losses and Capacity Using Open DSS	J. Singh Maan, **S. Singh** and A. Singh	International Journal of Emerging Electric Power Systems, vol. 20, no. 4, pp. August 2019	2019	1	SLIET Longowal	0
Distribution transformer failure modes, effects and criticality analysis (FMECA)	Jaspreet Singh, **Sanjeev Singh** and Amanpreet Singh	Engineering Failure Analysis, vol.99, pp.180-191, May 2019.	2019	10	SLIET Longowal	9
Microgrid: Configurations, Control and Applications	M. Rezkallah, Ambrish Chandra, Bhim Singh and **Sanjeev Singh**	IEEE Trans. Smart Grid, vol. 10, no. 2, pp. 1290-1302, March 2019	2019	7	SLIET Longowal	6
Assessment of Energy–Population–Urbanization Nexus with Changing Energy Industry Scenario in India	Avtar, Ram and Tripathi, Saurabh and Aggarwal, Ashwani Kumar	Land, volume 8, number 8, pages 124-128, 2019	2019	7	SLIET Longowal	2
Exploring Renewable Energy Resources Using Remote Sensing and GIS—A Review	Avtar, Ram and Sahu, Netrananda **and** Aggarwal, Ashwani Kumar and	Resources, volume 8, number 3, pages 149-155, 2019	2019	11	SLIET Longowal	10

	Chakraborty, Shamik and Kharrazi, Ali and Yunus, Ali P and Dou, Jie and Kurniawan, Tonni Agustiono					
Population–Urbanization–Energy Nexus: A Review	Avtar, Ram and Tripathi, Saurabh and Aggarwal, Ashwani Kumar and Kumar, Panka	Resources, volume 8, number 3, pages -136-142, 2019	2019	17	SLIET Longowal	16
Grasshopper Optimization algorithm based approach for the optimization of ensemble classifier and feature selection to classify epileptic EEG signals	Gurwinder Singh, Birmohan Singh, Manpreet Kaur	Medical and Biological Engineering and Computing,ISSN: 0140-0118,57(6): 1323-1339, 2019	2019	3	SLIET Longowal	2
Modelling of PAFC Based Scattering Monitoring System for the Characterization of the Therapeutic Micro-Bubbles	hor K. Bhardwaj, Surita Maini	Journal of Biomedical Photonics & Engineering, DOI 10.18287/JBPE19.05.030303, 2019	2019	1	SLIET Longowal	0
Fusion and Enhancement Techniques for Processing of Multispectral Images, Unmanned Aerial Vehicle: Applications in Agriculture and Environment	Aggarwal, Ashwani Kumar	Springer, 159–175, 2020	2020	1	SLIET Longowal	0
PLS-Based Multivariate Statistical Approach for Soft Sensor Development in WWTP	Barasha Mali, S. H. Laskar	Control Instrumentation Systems. Springer, Singapore, 2020. 123-131	2020	0	SLIET Longowal	0
Characterization and Measurement of Nanostructured Copper based Electromagnetic Wave Absorber	Surekha Rani, Anupma Marwaha, Sanjay Marwaha, Sukhleen Bindra, Murthy Chavali & P. Narasimha Reddy	J. Electromagnetics, Taylor and Francis, Vol. 41, 2020, DOI: 10.1080/02726343.2020.1780375, [SCI indexed; IF:0.6].	2020	1	SLIET Longowal	0
Modelling and simulation of vertical fin style aluminium heat sink for controlled thermal compensation in absorber loaded antenna array, Journal of Communication Technology and Electronics	Surekha Rani, Anupma Marwaha, Sanjay Marwaha	Springer, Vol. 11, 2020. [SCI indexed; IF:0.5].	2020	2	SLIET Longowal	1
Nanocomposite graphene	Surekha Rani,	Current Nanoscience, Bentham	2020	2	SLIET	1

based tunable absorber for combating electromagnetic pollution	Anupma Marwaha, Sanjay Marwaha	Science Publisher, Vol. 16(1), pp. 1-8, 2020			Longowal	
Graphene based Multiband Frequency Antipodal Vivaldi Nanoantenna for UWB Applications	Gaurav Bansal, A. Marwaha, Amanpreet Singh, Rajni Bala,S.Marwaha	Journal of Computational Electronics, February 2020, pp. 1-10	2020	2	SLIET Longowal	1
On a reduced cost derivative-free higher-order numerical algorithm for nonlinear systems	JR Sharma, D Kumar	Computational and Applied Mathematics	2020	0	SLIET Longowal	0
On derivative free multiple-root finders with optimal fourth order convergence	JR Sharma, S Kumar, L Jäntschi	Mathematics	2020	0	SLIET Longowal	0
An optimal fourth order derivative-free numerical algorithm for multiple roots	S Kumar, D Kumar, JR Sharma, C Cesarano, P Agarwal, YM Chu	Symmetry	2020	2	SLIET Longowal	2
On the local convergence and complex geometry of eighth order iteration function	IK Argyros, JR Sharma, S Kumar	Annales Univ. Sci. Budapest	2019	0	SLIET Longowal	0
Optimal one-point iterative function free from derivatives for multiple roots	D Kumar, JR Sharma, IK Argyros	Mathematics	2020	0	SLIET Longowal	0
Local convergence of an efficient multipoint iterative method in Banach space	JR Sharma, S Kumar, IK Argyros	Algorithms	2020	0	SLIET Longowal	0
Local convergence and attraction basins of higher order, Jarratt-like iterations	JR Sharma, D Kumar, IK Argyros	Mathematics	2019	0	SLIET Longowal	0
On a class of optimal fourth order multiple root solvers without using derivatives	JR Sharma, S Kumar, L Jäntschi	Symmetry	2019	0	SLIET Longowal	0
Convergence analysis and complex geometry of an efficient derivative-free iterative method	D Kumar, JR Sharma, L Jäntschi	Mathematics	2019	0	SLIET Longowal	0
Generalized Kung–Traub method and its multi-step iteration in Banach spaces	JR Sharma, S Kumar, IK Argyros	Journal of Complexity	2019	1	SLIET Longowal	1
An efficient class of weighted-Newton multiple root solvers with seventh order convergence,	JR Sharma, D Kumar, C Cattani	Symmetry	2019	0	SLIET Longowal	0

A modified Newton–Özban composition for solving nonlinear systems	R Sharma, JR Sharma, N Kalra	International Journal of Computational Methods	2019	0	SLIET Longowal	0
One-point optimal family of multiple root solvers of second-order	D Kumar, JR Sharma, C Cesarano	Mathematics	2019	0	SLIET Longowal	0
Numerical inverse Laplace transform based on Bernoulli polynomials operational matrix for solving nonlinear differential equations	Dimple Rani and Vinod Mishra	Results in Physics (Elsevier)	2020	1	SLIET Longowal	1
Numerical inverse Laplace transform for solving a class of fractional differential equations	Dimple Rani and Vinod Mishra and Carlo Cattani	Symmetry-Basel (MDPI)	2019	5	SLIET Longowal	5
Solving linear fractional order differential equations by Chebyshev polynomials based numerical inverse Laplace transform	Dimple Rani and Vinod Mishra	Mathematics in Engineering, Science and Aerospace	2019	0	SLIET Longowal	0
Some new harmonic mappings convex in one direction and their convolution	Chinu Singla, Sushma Gupta and Sukhjit Singh	Filomat	2019	0	SLIET Longowal	0
On a subclass of univalent harmonic mappings convex in the imaginary direction	Deepali Khurana, Sushma Gupta and Sukhjit Singh	Adv. Math.Sci. J	2020	0	SLIET Longowal	0
Some norm inequalities for operators	Y. Kapil, R. Pal, M. Singh and J.S.Aujla	Advances in Operator Theory	2019	0	SLIET Longowal	0
Inertia of some conditionally negative definite matrices	A. Aggarwal and M. Singh	Advances in Operator Theory	2019	0	SLIET Longowal	0
On a question of Bhatia, Friedland and Jain	Y. Kapil, R. Kaur and M. Singh	Linear and Multilinear Algebra	2019	0	SLIET Longowal	0
Phase transition of cosmological model with statistical techniques	Mishra R.K. Dua Heena,	Astrophysics and Space Science	2020	0	SLIET Longowal	0
Cosmological models in Sáez-Ballester theory with bilinear, varying deceleration parameter	Mishra R.K., Chand A.	Astrophysics and Space Science	2019	0	SLIET Longowal	0
Bulk viscous string cosmological models in Saez-Ballester theory of gravity	Mishra R.K. Dua Heena,	Journal of Astrophysics and Space Science	2019	3	SLIET Longowal	3
Physicochemical, molecular and thermal properties of high-intensity ultrasound (HIUS) treated protein isolates from album (*Chenopodium album*) seed.	Nisar A. Mir, Charanjit S. Riar, Sukhcharn Singh	Food Hydrocolloids	2019	2	SLIET Longowal	14

Effect of chemical composition, granule structure and crystalline form of pigmented rice starches on their functional characteristics	Farhan Mohiuddin Bhat, Charanjit Singh Riar	Food Chemistry	2019	1	SLIET Longowal	03
Structural modification of quinoa seed protein isolates (QPIs) by variabletime sonification for improving its physicochemical and functional characteristics,	Nisar A. Mir, Charanjit S. Riar, Sukhcharn Singh	Ultrasonics–Sonochemistry	2019	1	SLIET Longowal	09
Sensory, rheological and chemical characteristics during storage of set type full fat yoghurt fortified with barley β-glucan,	Ramandeep Kaur, Charanjit S. Riar	Journal of Food Science and Technology	2019	1	SLIET Longowal	08
Composition and functionality of bee pollen: A review,	Mamta Thakur and Vikas Nanda	Trends in Food Science & Technology	2020	2	SLIET Longowal	10
Sugar profile and rheological behaviour of four different Indian honey varieties.	Rajni Kamboj, Gulzar Ahmad Nayik, Manav Bandhu Bera, Vikas Nanda	Journal of Food Science and Technology	2020	1	SLIET Longowal	1
Analysis of crystallization phenomenon in Indian honey using molecular dynamics simulations and artificial neural network.	Rishi Rabindra Naik, Mamta Thakur and Vikas Nanda	Food Chemistry	2019	1	SLIET Longowal	4
Moisture sorption isotherms and quality characteristics of onion powder during storage as affected by sprouting.	Ishrat Majid, Shafat Hussain and Vikas Nanda	Journal of Food Measurement and Characterization	2019	0	SLIET Longowal	0
Impact of sprouting on the degradation kinetics of color and vitamin C of onion powder packaged in different packaging materials.	Ishrat Majid, Shafat Hussain and Vikas Nanda	Journal of Food Processing and Preservation.	2019	1	SLIET Longowal	3
Unmasking the Many Faces of Giloy (*Tinospora cordifolia* L.): A Fresh Look on its Phytochemical and Medicinal Properties.	Verma, D. K., Kimmy, G., Kumar, P. and El-Shazly, M.	*Current Pharmaceutical Design.*	2020	0	SLIET Longowal	0
Exploring the influence of heat moisture treatment on physicochemical, pasting, structural and morphological properties of mango kernel starches from Indian cultivars,	Indu Bharti, Sukhcharn Singh, DC Saxena,	LWT-Food Sci. & Technology	2019	1	SLIET Longowal	03
Experimental and modeling studies of the flow, dynamic and creep recovery properties of	Mamta Bhardwaj, Kawaljit Singh Sandhu, DC	International Journal of Biological Macromolecules,		0	SLIET Longowal	0

pearl millet starch as affected by concentration and cultivar type,	Saxena,					
Valuation of *Citrus reticulata* (kinnow) peel for the extraction of lutein using ultrasonication technique.	A. Saini, Parmjit S. Panesar, M.B. Bera	*Biomass Conv. Bioref*.	2020	1	SLIET Longowal	4
Recent trends on the valorization strategies for the management of citrus by-products,	Divyani Panwar, Parmjit S. Panesar & Harish K. Chopra	*Food Reviews International*	2019	1	SLIET Longowal	3
L(+) lactic acid production by immobilized *Lactobacillus casei* using low cost agro-industrial waste as carbon and nitrogen source.	Avinash Thakur, Parmjit S. Panesar and Manohar S. Saini	*Waste and Biomass Valorization*	2019	1	SLIET Longowal	9
A comparative study on experimental and response surface optimization of lactic acid synergistic extraction using green emulsion liquid membrane.	Anil Kumar, Avinash Thakur and Parmjit S. Panesar	*Separation and Purification Technology*	2019	2	SLIET Longowal	10
Peroxidase as indicator enzyme of blanching in bottle gourd (*Lagenaria siceraria*): Changes in enzyme activity, color, and morphological properties during blanching.	Suheela Bhat, Charanjiv Singh Saini, Manish Kumar and Harish Kumar Sharma. 2019.	Journal of Food Processing and Preservation	2019	0	SLIET Longowal	0
Algorithm for processing high definition images for food colourimetry.	P.S. Minz, Ish Kumar Sawhney and Charanjiv Singh Saini.	Measurement,	2020	0	SLIET Longowal	0
A Comparative Study on the extraction and quantification of polyphenols from citrus peels using maceration and ultrasonic technique.	A. Saini, Parmjit S. Panesar, M.B. Bera.	*Current Research in Nutrition and Food Science*,	2019	1	SLIET Longowal	4
A comparative study on experimental and response surface optimization of lactic acid synergistic extraction using green emulsion liquid membrane.	Anil Kumar, Avinash Thakur and Parmjit S. Panesar	*Separation and Purification Technology,*	2019	2	SLIET Longowal	10
Classification, Functional Properties and Health Related Issues Associated with Consumption of Fats: A Review, International	Farhan Mohiuddin Bhat, Shruti Chandel, Sangita Sood, Yadvinder S Dhaliwal, Charanjit S Riar	Journal of Pharmacy and Pharmaceutical Research,	2019	0	SLIET Longowal	0
Effects of Milling on the Bran Removal, Nutritional	Bhat FM, Riar CS and Sangita S	Food Science and Nutrition Technology,	2019	0	SLIET Longowal	0

and Cooking Characteristics of Traditional Rice Cultivars,						
Formulation and characterization of cookies prepared from the composite flour of germinated kidney bean, chickpea, and wheat,	Mandeep Singh Sibian, Charanjit Singh Riar.	Legume Science	2020	1	SLIET Longowal	1
Effect of storage period and packaging materials on textural, phenolic, antioxidant properties of cookies made from raw and germinated minor millet blends flour.	Seema Sharma, Charanjit S Riar	Annals. Food Science and Technology,	2020	1	SLIET Longowal	1
Bioactive compounds from cereal and pulse processing byproducts and their potential health benefits.	A. Saini, Divyani Panwar, Parmjit S. Panesar, M.B. Bera	*Austin Journal of Nutrition and Metabolism*,	2019	0	SLIET Longowal	0
Kinetic study of extrusion cooking of corn-rice flour blend fortified with nutraceutical concentrates with respect to various physical parameters,	Jasmeet Kour, Sukhcharn Singh, Dharmesh C Saxena	British Food Journal,	2019	0	SLIET Longowal	0
Tensile Strength and Solubility Studies of Edible Biodegradable Films Developed from Pseudo-cereal Starches: An Inclusive Comparison with Commercial Corn Starch,	Narender Kumar Chandla, Sunil Kumar Khatkar, Sukhcharn Singh, DC Saxena, Navdeep Jindal, Venus Bansal, Nitin Wakchaure,	Asian Journal of Dairy & Food Research	2020	0	SLIET Longowal	0
Quality attributes of germinated amaranth flour pasta supplemented with different hydrocolloids,	Arti Chauhan, DC Saxena, Sukhcharn Singh,	Journal of Advances in Food Science & Technology,	2019	01	SLIET Longowal	01
Synthesis of Palladium nanoparticles in SiO_2 matrix	Kanika Aggarwal	International journal of Advanced science and technology	2019	00	SLIET Longowal	00
Hydrogen sensing properties of Palladium Thin films and Nanoparticles	Kanika Aggarwal	AIP Conference Proceedings	May, 2020	00	SLIET Longowal	00
Two-particle azimuthal correlations as a probe of collective behaviour in deep inelastic ep scattering at HERA	Prabhdeep Kaur (as a member of ZEUS collaboration)	JOURNAL OF HIGH ENERGY PHYSICS	Dec, 2019	00	SLIET Longowal	00
Study of proton parton distribution functions at high x using ZEUS data	Prabhdeep Kaur (as a member of ZEUS collaboration)	Physical review D	March, 2020	00	SLIET Longowal	00

On the potential for superconductivity in ZrX (X = S and Te): a first-principles study	Gupta, Y., Sinha, M.M., Verma, S.S.	Physica C: Superconductivity and its Applications	2020	0	SLIET Longowal	0
Magneto-plasmonic Co@M (M = Au/Ag/Au-Ag) core-shell nanoparticles for biological imaging and therapeutics	Bhatia, P., Verma, S.S., Sinha, M.M.	Journal of Quantitative Spectroscopy and Radiative Transfer	2020	0	SLIET Longowal	0
Lattice dynamics of novel Heusler alloys MnY2Z (Z=Al and Si)	Gupta, Y., Sinha, M.M., Verma, S.S.	Physica B: Condensed Matter	2020	1	SLIET Longowal	0
Size-dependent optical response of complex CoFe@Ag & CoFe@Au core-shell nanospheres	Bhatia, P., Verma, S.S., Sinha, M.M.	Chemical Physics Letters	2020	1	SLIET Longowal	0
Enhanced photocurrent in thin-film GaAs solar cells with embedded Al nanoparticles	Singh, G., Sekhon, J.S., Verma, S.S.	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	2020	2	SLIET Longowal	1
Tunable optical response of Fe-Ag nanoparticles in core-Shell nanostructures	Bhatia, P., Verma, S.S., Sinha, M.M.	Journal of Electromagnetic Waves and Applications	2020	0	SLIET Longowal	0
Theoretical study of structural, electronic and lattice dynamical properties of novel AlNiP half-Heusler alloy	Gupta, Y., Sinha, M.M., Verma, S.S.	Philosophical Magazine	2020	0	SLIET Longowal	0
Tunable plasmonic properties of elongated bimetallic alloys nanoparticles towards deep UV-NIR absorbance and sensing	Bhatia, P., Verma, S.S., Sinha, M.M.	Journal of Quantitative Spectroscopy and Radiative Transfer	2020	0	SLIET Longowal	0
Design and analysis of thin film GaAs solar cells using silver nanoparticle plasmons	Singh, G., Verma, S.S.	Photonics and Nanostructures - Fundamentals and Applications	2019	1	SLIET Longowal	1
Size dependent plasmonic properties of Ga@Ag & Cs@Ag liquid–metal nanospheres	Bhardwaj, A., Verma, S.S.	Optics Communications	2019	0	SLIET Longowal	0
Optical properties simulation of magneto-plasmonic alloys nanostructures	Bhatia, P., Verma, S.S., Sinha, M.M.	Plasmonics	2019	5	SLIET Longowal	0
A First Principle Study of Structural, Electronic and Vibrational Properties of LuPdBi Half Heusler Alloy	Gupta, Y., Sinha, M.M., Verma, S.S.	Physics Status Solidi b	2019	2	SLIET Longowal	0
Size-Dependent RIS and FOM of Ag-Fe and Au-Fe Bimetallic Alloys in Triangular Prism: a DDA Study	Bhatia, P., Verma, S.S., Sinha, M.M.	Photonic Sensors	2019	1	SLIET Longowal	0
Tuning the Optical	Bhatia,	Physics Letters A	2019	7	SLIET Longowal	5

Properties of Fe-Au Core-Shell Nanoparticles with Spherical and Spheroidal Nanostructures	P., Verma, S.S., Sinha, M.M.					
Plasmon enhanced light trapping in thin film GaAs solar cells by Al nanoparticle array	G Singh, SS Verma	Physics Letters A	2019	12	SLIET Longowal	9
Synthesis and Characterization of Some Useful Thermoelectric Materials	J SINGH, SS VERMA	Asian Journal of Chemistry	2019	3	SLIET Longowal	3
Novel Green Synthesis and Characterization of the Antioxidant Activity of Silver Nanoparticles Prepared from Nepeta leucophylla Root Extract,	Jagdeep Singh & Amarjit Singh Dhaliwal	Analytical Letters (IF= 1.260)	2019	0	SLIET Longowal	0
Plasmon-induced photocatalytic degradation of methylene blue dye using biosynthesized silver nanoparticles as photocatalyst,	Jagdeep Singh & A. S. Dhaliwal	Environmental Technology (I.F = 2.213)	2020	0	SLIET Longowal	0
Modified atomic number dependence of total bremsstrahlung spectra in compounds,	Sjit Sharma, T Singh, D Singh, A Singh, A S Dhaliwal,	Turkish Journal of Physics(IF=0.34)	2019	0	SLIET Longowal	0
Photon Interaction Parameters Investigations for Some ZnO–Al2O3–Fe2O3–P2O5 Glasses at 59.4 keV Incident Photon Energy.	R Singh, D Singh, A Singh, AS Dhaliwal	Glass Physics and Chemistry (IF=0.630)	2019	0	SLIET Longowal	0
Structural investigation of Nd-zirconolite irradiated with He+ ions.	M. Gupta, P. K. Kulriya, R. Kumar & S. S. Ghumman,	Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms (IF= 1.270)	2020	0	SLIET Longowal	0
Probing swift heavy ion irradiation damage in Nd-doped zirconolite.	Merry Gupta P.K. Kulriya, R.C.Meena, S.Neumeier & S.S.Ghumman,	Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms (IF= 1.270)	2019	0	SLIET Longowal	0
Phase analysis and reduction behaviour of Ce dopant in zirconolite.	Rajveer Kaur, M. Gupta,P. K. Kulriya and S. S. Ghumman,	Journal of Radioanalytical and Nuclear Chemistry (IF= 1.240)	2019	0	SLIET Longowal	0
Synthesis of a new tetradentatechelator with 1-Hydoroxy-2(1H)-pyridinone (HOPO) as chelating unit: Interaction with Fe (III), solution thermodynamics and DFT studies	B.K. Kanungo, MinatiBaral, Dibyajit Dash	J. Molecular Structure	2020	0	SLIET Longowal	0

Photophysical Studies of a Catechol Based PolyfunctionalDipodalChelator: Application for Optical Probe for Selective Detection of Fe(III)	B K Kanungo,Minati, Baral, Vijay Dangi	Journal of fluorescence	2020	0	SLIET Longowal	0
Dipodal Molecular Device as Fluorescent Sensor for Na(I) Detection	B K KanungoMinati, Baral, Vijay Dangi	Journal of Applied Spectroscopy	2020	0	SLIET Longowal	0
Experimental and Theoretical Studies on Structure, Bonding and Luminescence Properties of Eu(III) and Tb(III) Complexes of a New Macrocyclic Based 8HQ Ligand	B K Kanungo, Rohini, Minati Baral	Journal of Coordination Chemistry	2019	0	SLIET Longowal	0
Structural effect on the central cavity of a pendent 12N3 macrocycle on bonding and photophysical properties of Eu^{3+} and Tb^{3+} complexes: Experimental and theoretical study	B K Kanungo, Rohini, Minati Baral	Journal of Molecular Structure	2019	1	SLIET Longowal	0
Study for the Development of a Cyclohexane Based Tripodal Molecular Device as "OFF-ON-OFF" pH Sensor and Fluorescent Iron Sensor	B. K. KanungoMinati, Baral, Vijay Dangi	Current Analytical Chemistry	2019		SLIET Longowal	
Experimental and theoretical investigations of Mn-N-co-doped TiO_2 photocatalyst for visible light induced degradation of organic pollutants	Dhiraj Sud N Sharotri, D Sharma	Journal of Materials Research and Technology	2019	19	SLIET Longowal	19
Investigations on amphoteric Chitosan/TiO_2 bio-nanocomposites for application in visible light induced photocatalytic degradation	Dhiraj Sud M. Bahal, N. Kaur, N. Sharotri	Advances in Polymer Technology	2019	03	SLIET Longowal	03
A Review on High Performance Liquid Chromatographic Methods for the Determination of Metformin	DhirajSud, G. Kaur Sonali Garg, Pratima Sharma	Current Analytical Chemistry	2020	0	SLIET Longowal	0
Development of Simple, Facile Spectrophotometric Method for Determination of Metformin Hydrochloride	Dhiraj Sud, Sonali Garg, Pratima Sharma	J Pharm Drug Deliv Res	2020	0	SLIET Longowal	0

in Aqueous Medium						
Synthesis and applications of carbohydrate based chiral ionic liquids as chiral recognition agents and organo-catalysts	Harish Kumar Chopra and Nirmaljeet Kaur	Journal of Molecular Liquids	2020	05	SLIET Longowal	05
Optimization of process variables of probe ultrasonic-assisted extraction of phenolic compounds from the peel of Punicagranatum Var. Bhagwa and its chemical and bioactivity	Harish Kumar Chopra, MB Bera, R Foujdar	Journal of Food Processing and	2020	02	SLIET Longowal	02
Chiral Recognition Methods in Analytical Chemistry: Role of the Chiral Ionic Liquids	Harish Kumar Chopra, Avtar Singh,Nirmaljeet Kaur	Crit. Rev. Anal. Chem.	2019	08	SLIET Longowal	07
Recent Trends on the Valorization Strategies for the Management of Citrus By-products,	Harish Kumar Chopra,P.S.Panesar, Divyani Panwar	Food Rev. International	2019	01	SLIET Longowal	01
Recent Advances in Applications of Supported Ionic Liquids	Harish Kumar Chopra, Pawanpreet Kaur	Curr. Org. Chem	2019	0	SLIET Longowal	0
Ultrasound assisted facile synthesis and antimicrobial studies of alkanediyl-bis-thiazolidi-4-one and alkanediyl-thiazinz-4-ones.	R.P. Chaudhary, Amritpal Kaur, A. P. Kaur, P. Gautan, D. Gautam	Journal of Heterocyclic Chemistry	2019	0	SLIET Longowal	0
Correlation study among the extraction techniques, phytochemicals, and antioxidant activity of Nepeta spicata aerial part	Damanjit Singh Cannoo Poonam Kumari Patial, Ajay Sharma, Inderpal Kaur	Biocatalysis and Agricultural Biotechnology	2019	02	SLIET Longowal	0
Phytochemical profile, antioxidant potential and DFT study of Araucaria columnaris (G. Forst.) Hook. Branch extracts	Damanjit Singh Cannoo, Poonam Kumari Patial	Natural Product Research	2019	02	SLIET Longowal	01
Evaluation of volatile compounds, phenolic acids, antioxidant potential and DFT study of essential oils from different parts of Araucaria columnaris (G. Forst.) Hook. from India	Damanjit Singh Cannoo, Poonam Kumari Patial	Food and Chemical Toxicology	2020	0	SLIET Longowal	0
A review of bischalcones: synthesis and pharmacological applications	Himanshu Rani, V. Bhardwaj	International Journal of Research and Analytical Reviews	2019	0	SLIET Longowal	0
Advances in urea and	Payal Malik, Isha	Eur. Polym. J.	2020	0	SLIET Longowal	0

thiourea catalyzed ring opening polymerization: A brief overview	Jain					
Thermal and tensile properties of PVA and wood flour composites	Rajeev Bagoria, Vikram Kumar, Sohan Lal, and Sanjiv Arora	International Journal of Applied Engineering Research	2019	0	SLIET Longowal	0
Multi response optimization of CNC end milling of AISI H11 alloy steel for rough and finish machining using TGRA,	Dr.P.K. Singh	Material Today	2020	02	SLIET Longowal	02
Optimization of surface roughness and hole diameter accuracy in drilling of EN-31 alloy steel–A TGRA based analysis	Dr.P.K. Singh	Material Today	2020	01	SLIET Longowal	01
Investigation of Tribological Behaviour of Al-4032 Based Metal Matrix Composite using Taguchi's Optimization Approach, Materials	Dr.P.K. Singh	Material Today	2019	0	SLIET Longowal	0
Microstructural and Mechanical Characterization of Al-4032 Based Metal Matrix Composites,	Dr.P.K. Singh	Material Today	2019	0	SLIET Longowal	0
Investigation of wear characteristics of Al-4032 based metal matrix composite using Taguchi's optimization approach,	Dr.P.K. Singh	Material Today	2019	0	SLIET Longowal	0
Influence of different filler weld wire chemistries on metallurgical and mechanical behavior of ultrahigh strength steel welded joints",	Dr.A.S.Shahi	Journal of Materials	2019	02	SLIET Longowal	02
Metallurgical and corrosion characterization of electron beam welded duplex stainless steel joints	Dr.A.S.Shahi	Elsevier, SCOPUS	2019	01	SLIET Longowal	01
Weld metal composition and aging influence on metallurgical, corrosion and fatigue crack growth behavior of austenitic stainless steel welds.	Dr.A.S.Shahi	IOP	2019	01	SLIET Longowal	01
Metallurgical, fatigue and pitting corrosion behavior of AISI 316 joints welded with Nb based stabilized steel filler	Dr.A.S.Shahi	Springer	2020	01	SLIET Longowal	01

Influence of intermetallic precipitation on metallurgical, mechanical and pitting behavior of AISI 2205 duplex stainless steel welded joints,	Dr.M.Majid	IOP	2019	01	SLIET Longowal	01
Investigations on High Temperature Wear And Metallurgical Characteristics Of Stellite 6 GTA (Gas Tungsten Arc) Weld Claddings, Mater	Dr.A.S.Shahi	IOP	2020	0	SLIET Longowal	0
Optimization of Turning Parameters of Titanium Chrome-moly (Ti-Cr-Mo) Alloy using Taguchi Method	Dr.A.jayant	Indian Journal of Engineering & Materials Sciences	2020	0	SLIET Longowal	0
Decision Support Framework for Smart Implementation of Green Supply Chain Management Practices	Dr.A.jayant	Springer, Cham (Scopus).	2020	0	SLIET Longowal	0
A robust hybrid multi-criteria decision-making approach for selection of third-party reverse logistics service provider	Dr.A.jayant	Springer,	2019	0	SLIET Longowal	0
Application of Machine Learning Technique for demand forecasting: A Case Study of manufacturing industry	Dr.A.jayant	Springer,	2019	0	SLIET Longowal	0
Low Carbon Supply Chain Management: A Fuzzy-DEMATEL Analysis of Some Practical Issues of Indian Manufacturing Industries	Dr.A.jayant	Springer,	2019	0	SLIET Longowal	0
A novel hybrid MCDM approach based on DEMATEL, AHP and TOPSIS to evaluate green suppliers	Dr.A.Jayant	IOP	2019	0	SLIET Longowal	0
Sustainable supplier selection for battery manufacturing industry: A MOORA and WASPAS Based Approach	Dr.A.Jayant	IOP Journal of Physics	2019	0	SLIET Longowal	0
An Intelligent Simulation based case study of Indian Micro Small Medium Enterprise (MSME) of farm equipment Manufacturing	Dr.A.jayant	IOP Journal of Physics	2019	0	SLIET Longowal	0
Simulation based design of Production and Multi echelon supply chain	Dr.A.Jayant	IOP Journal of Physics	2019	01	SLIET Longowal	01

network for job shop manufacturing environment						
High temperature corrosion performance of ceria doped Cr3C2-NiCr coated superalloys under actual medical waste atmosphere	Er.lalit Ahuja	Materials Today	2020	0	SLIET Longowal	0
Evaluation of high temperature oxidation performance of bare and coated T91 steel,	Dr.M.Kumar	Materials Today	2020	0	SLIET Longowal	0
Arduino Based Economic and Real Time Consumption Rate Computing	Dr.Sunil kumar	Universal Journal of Mechanical Engineering	2019	0	SLIET Longowal	0
Signal Processing for Enhancing Impulsiveness Toward Estimating Location of Multiple Roller Defects in a Taper Roller Bearing"	Dr.Rajesh Kumar		2020	03	SLIET Longowal	03
Worm and wheel gears fault frequency extraction using minimum entropy deconvolution based envelope of the vibration signal,	Dr.Rajesh Kumar	IOP Journal of Physics	2019	0	SLIET Longowal	0
Development of exothermic flux for enhanced penetration for submerged arc welding process	Dr.Kulwant Singh	Journal of Advanced Manufacturing Systems,	2020	0	SLIET Longowal	0
Some feasible studies for recycling of steel slag as a useful flux for submerged arc welding	Dr.Kulwant Singh	Journal of Advanced Manufacturing Systems,	2020	0	SLIET Longowal	0
Some studies into weldability of rice husk ash aluminium matrix composite using TIG welding,	Dr. Shankar Singh	Material Today	2019	0	SLIET Longowal	0
Assessment of Creep in Composite Disc having Exponential, Hyperbolic and Uniform Thickness Profiles	Dr.R.K. Saxsena	Material Today	2020	0	SLIET Longowal	0
Finite element simulation of Stress Corrosion cracking in Austenitic Stainless Steel using Modified Lemaitre Damage Model	Dr.R.K. Saxsena	Material Today	2020	0	SLIET Longowal	0
An examination of mechanical properties of dissimilar AISI 304	Dr.R.K. Saxsena	Material Today	2020	0	SLIET Longowal	0

stainless steel and copper weldment obtained using GTAW						
Analysis of joint overlap during friction spin welding of plastics	Dr.R.K. Saxsena	Material Today	2020	0	SLIET Longowal	0
Determination of Johnson-Cook material model for weldment of mild steel	Dr.R.K. Saxsena	Material Today	2020	0	SLIET Longowal	0
Numerical simulation of fracture behavior under high-velocity impact for Aluminium alloy 6060 Target plate	Dr.R.K. Saxsena	Material Today	2020	0	SLIET Longowal	0
Prediction of bending behaviour for Laser Forming of Lime coated plain Carbon steel using Finite Element Method	Dr.R.K. Saxsena	Material Today	2020	0	SLIET Longowal	0
An Experimental investigation into heat transfer characteristics of Cu nanofluid for automobile radiator	Dr.R.K. Yadav	IOP Journal of Physics	2019	0	SLIET Longowal	0
Multi-response Optimization using TGRA for End Milling of AISI H11 Steel Alloy Using Carbide End Mill	Dr.P.K. Singh	IOP Journal of Physics	2019	02	SLIET Longowal	02
Manufacturing Excellence through Total Productive Maintenance Implementation in an Indian Industry	Dr.P.Gupta	International Journal of Mechanical and Production Engineering	2019	0	SLIET Longowal	0
Fabrication of μ-Channels on Pure-Ti using USM and Optimization of Process Parameters	Dr.P.Gupta	International Journal of Mechanical and Production Engineering	2019	0	SLIET Longowal	0
Performance and Emission testing of Diesel Engine using blends of Biodiesel from Castor Oil and Neem Oil prepared using Lithium Doped CaO Nano-Catalyst	Dr.P.Gupta	Springer Proceeding Lecture Notes in Mechanical Engineering	2019	0	SLIET Longowal	0
Identifying the most influencing success factors of TQM implementation in manufacturing industries using Analytical Hierarchy Process	Dr.P.Gupta	Proceedings of the International Conference on Industrial Engineering and Operations Management Dubai	2020	0	SLIET Longowal	0
To Investigate the Relationship between TQM Enablers Applicable In Indian	Dr.P.Gupta	Proceedings of the International Conference on Industrial Engineering and Operations Management Dubai	2020	0	SLIET Longowal	0

Engineering Educational Institutes						
Hybrid Response Surface Method-African Buffalo Optimization Technique for Ultrasonic Production of Biodiesel from Waste Cooking Oil using Li doped CaO Nanocatalys	Dr.P.Gupta	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	2020	0	SLIET Longowal	0
Composite approach of RSM-ABO for optimization of production of Ricinus Communis biodies el using Lithium doped CaO Nanocatalys	Dr.P.Gupta	International journal of advances in Science and Technology	2020	0	SLIET Longowal	0
Case Study on Business Excellence Issues of an Indian Automobile Manufacturer using SAP-LAP Framework	Dr. P. Gupta	International Journal on Emerging Technologies	2020	0	SLIET Longowal	0
Multi-Objective Optimization of Electro Discharge Machining of Nimonic 75 Using Taguchi Based Grey Relational Analysis	Dr. Shankar Singh	Journal of Advanced Manufacturing Systems	2020	0	SLIET Longowal	0
Multi-objective optimization of Electrical Discharge Machining of Nimonic 75 using Teaching Learning Based Optimization(TLBO) Algorithm	Dr.Shankar Singh	Materials Today	2020	0	SLIET Longowal	0
An Exploratory Investigation and Optimization of Taper Cutting Operation with Wire Electro Discharge Machining	Dr.Shankar \Singh		2020	0	SLIET Longowal	0
Support Vector Machine Model for Demand Forecasting in an Automobile parts industry:	Dr.A.Jayant	International Research Journal of Science, Engineering and Technology	2019	0	SLIET Longowal	0
Application of Machine Learning Techniques in Supply Chain Management	Dr.A.Jayant	International Research Journal of Management Sciences & Technology	2019	0	SLIET Longowal	0
Evaluating Low Carbon Supply Chain Practices in India using Fuzzy Tool based Importance and Performance Analysis	Dr.A.Jayant	Journal of Energy, Environment & Carbon Credits	2019	0	SLIET Longowal	0
Electro Discharge Drilling (EDD) of Rice Husk Ash Reinforced Aluminium Matrix Composite Using Different Electrode	Dr.Shankar Singh	Journal of Emerging Technologies and Innovative Research	2019	0	SLIET Longowal	0

Shapes						
Some studies into Slicing of Titanium alloy using Wire Electro-Discharge Machining Process	Dr.Shankar Singh	Journal of Emerging Technologies and Innovative Research	2019	0	SLIET Longowal	0
Effect of post weld thermal aging (PWTA) sensitization on micro-hardness and corrosion behaviour of AISI 304 weld joints	A.S. Shahi	Journal of Physics:	2019	0	SLIET Longowal	0
Sensitization Studies on the Metallurgical and Corrosion Behaviour of AISI 304 SS Welds M Kumar, A Sharma, AS Shahi	A.S. Shahi	Advances in Manufacturing Processes	2019	0	SLIET Longowal	0
Metallurgical, impact and fatigue performance of electron beam welded duplex stainless steel joints	A.S. Shahi	Journal of Materials Processing Technology	2019	0	SLIET Longowal	
Erosion Behavior Of Hydrophobic Polytetrafluoroethylene (PTFE) Coatings with Different Thicknesses'	Er.Anuj Bansal	Journal of manufacturing Process	2020	0	SLIET Longowal	
Influence of Cryogenic Treatment on Mechanical Performance of Friction Stir Al-Zn-Cu Alloy Weldments	Er.Anuj Bansal	Journal of manufacturing Process	2020	0	SLIET Longowal	
Laser Cladding Technique for Erosive Wear Applications:	Er.Anuj Bansal	Journal of manufacturing Process	2020	0	SLIET Longowal	
Slurry Erosion Behavior of HVOF-Sprayed Wc-10Co-4cr Coated SS 316 Steel with and without PTFE Modification	Er.Anuj Bansal	Journal of Thermal spray Technology	2019	0	SLIET Longowal	
A novel health indicator developed using filter-based feature selection algorithm for the identification of rotor defects" Proceedings of the Institution of Mechanical Engineers Part O	Dr.Anil Singla	Journal of Risk and Reliability	2020	0	SLIET Longowal	
Bearing defect size assessment using wavelet transform based Deep Convolutional Neural Network (DCNN	Dr.Anil Singla	Alexandria Engineering Journal (Elsevier	2020	0	SLIET Longowal	

Development of LDA Based Indicator for the Detection of Unbalance and Misalignment at Different Shaft Speeds	Dr.Anil Singla	Springer	2019	0	SLIET Longowal	
Abrasive wear behavior of cryogenically treated Boron Steel (30 MnCrB4) used in rotavator blades,	Dr.Anil Singla	SCIE	2019	0	SLIET Longowal	
Influences of Latent Heat on Temperature Field, Weld Bead Dimensions and Melting Efficiency During Welding Simulation	Dr.R.K.Saxsena	Defence Science Journal	2020	0	SLIET Longowal	
Creep Response of Rotating Composite Discs having Exponential, Hyperbolic, Linear and Constant Thickness Profiles	Dr.R.K. Saxsena	Defense Science Journal	2020	0	SLIET Longowal	
Sustainability and machinability improvement of Nimonic-90 using indigenously developed green hybrid machining technology	Dr.Anil Singla	Journal of Cleaner production	2020	0	SLIET Longowal	
Impact of Cryogenic Treatment on HCF and FCP Performance of β-Solution Treated Ti-6Al-4V ELI Biomaterial	Dr.Anil Singla	Journal of Materials Engineering and Performance	2020	0	SLIET Longowal	
Machinability investigations of hardened steel with biodegradable oil-based MQL spray system	Dr.Anil Singla	International Journal of Advanced Manufacturing Technology	2020	0	SLIET Longowal	
Impact of Cryogenic Treatment on Mechanical Behavior and Microstructure of Ti-6Al-4V ELI Biomaterial	Dr.Anil Singla	Journal of Materials Engineering and Performance	2019	0	SLIET Longowal	
Parametric optimization of USM parameters by Taguchi and NSGA-II for the development of μ-channels on pure titanium. Grey Systems: Theory and Application	Dr.P.Gupta	ESCI Indexed Journal	2020	0	SLIET Longowal	
Modelling and optimization of novel biodiesel production from non-edible oil with musa balbisiana root using hybrid response surface methodology along with african buffalo optimization	Dr.P.Gupta	SPRINGER	2020	02	SLIET Longowal	02

3.4.6 h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)						
Title of the paper	Name of the author	Title of the journal	Year of publication	h-index	Number of citations excluding self citations	Institutional affiliation as mentioned in the publication
An unconstrained and effective approach of script identification for online bilingual handwritten text	Gurpreet Singh, Manoj Kumar Sachan	National Academy Science Letters	January 2020	5	0	SLIET
SentiVerb system: classification of social media text using sentiment analysis	Shailend ra Kumar Singh, Manoj Kumar Sachan	Multimed ia Tools & Applicati ons	Novemb er 2019	5	3	SLIET
Simultaneous feature weighting and parameter determination of neural networks using ant lion optimization for the classification of breast cancer	Dalwinde r Singh, Birmoha n Singh, Manpree t Kaur	Biocyber netics and Biomedic al Engineer ing	January-March 2020	8	1	SLIET
Flexible fault tolerance in cloud through replicated cooperative resource group	Moin Hasan, Major Singh Goraya	Compute r Commun ications	Septemb er 2019	6	2	SLIET
A Survey and Taxonomy on Energy Management Schemes in Wireless Sensor Networks	Jaspreet Singh, Ranjit Kaur, Damanpr eet Singh	Journal of Systems Architect ure	May 2020	4		SLIET
Satisfaction aware QoSbased bidirectional service mapping in cloud environment	Neeraj Yadav, Major Singh Goraya, Damanpr eet Singh	Cluster Computi ng	February 2020	6	2	SLIET
An energy efficient scalable clustering protocol for dynamic wireless sensor networks	Harmanp reet Singh, Damanpr eet Singh	Wireless Personal Commun ications	August 2019	4	0	SLIET
An energy-efficient cloud system with novel dynamic resource allocation methods	Chao Tung Yang, Shuo- Tsung Chen, Jung- Chun Liu, Yu- Wei Chan, Chien-Chih Chen, Vinod Kumar Verma	The Journal of Superco mputing	August 2019	6	2	SLIET
Real-time inclusive	Kuldeep Verma,	Journal of the Brazilian	2020	6	0	SLIET

investigations for the selection of servo drive system of CNC machining centers	R.M. Belokar, Vinod Kumar Verma, Klimis Ntalianis	Society of Mechani cal Sciences and Engineer ing				
Computer aided face liveness detection with facial thermography	Manmind er Singh, Ajat Shatru Arora	Wireless Personal Commun ications	Decemb er 2019		0	SLIET
GRT:Gurmukhi to Roman transliteration system using character mapping and handcrafted rules	Manoj Kumar Sachan, Shailend ra Kumar Singh	Internatio nal Journal of Innovativ e technolo gy and Exploring Engineer ing	July 2019	5	0	SLIET
Implementation of a software-defined storage service with heterogeneous storage technologies	Chao-Tung Yang, Shuo-Tsung Chen, Wei-Hsiang Lien and Vinod Kumar Verma	Journal of Internet Services and Informati on Security	Septemb er 2019	6	0	SLIET
A Ranking Based Model for Selecting Optimum Cloud Geographical Region	Neeraj, Major Singh Goraya, and Damanpr eet Singh	International Journal of Innovative Technology and Exploring Engineering	August 2019	6	1	SLIET
VM Selection and Allocation Policy to Optimize VM Migration in Cloud Environment	Neha Garg, Damanpr eet Singh, Major Singh Goraya	Internatio nal Journal of Recent Technolo gy and Engineer Ing	July 2019	6	0	SLIET
A review on retinal blood vessel segmentation methodologies	Aastha, Rahul Gautam	Internatio nal Journal of Scientific	Septemb er 2019	1		SLIET
Effect of different elemental chlorine free bleaching sequences on pulp and effluent properties and their impact on index of global pollution	Tripathi, S.K., Bhardwaj, N.K., and Ghatak H.R.	Environmental Science and Pollution Research	2020	0	0	SLIET

Developments in ozone-based bleaching of pulps	Tripathi, S.K., Bhardwaj, N.K., and Ghatak H.R.	Ozone: Science and Engineering	2020	0	02	SLIET
Improvement in selectivity of ozone bleaching using DTPA as carbohydrate protector for wheat straw pulp	Tripathi, S.K., Bhardwaj, N.K., and Ghatak H.R.	Nordic Pulp and Paper Research Journal	2019	0	01	SLIET
Adsorptive finding on selective biomass for removal of Phenol from aqueous solutions	Jha, Pushpa	Resources, 8(4), 180; 2019	2019	24	01	SLIET
Recent developments on sustainable solvents for emulsion liquid membrane processes	Anil Kumar, Avinash Thakur, and Parmjit Singh Panesar	Journal of Cleaner Production	2019	173	03	SLIET
Statistical optimization of lactic acid extraction using green solvent and mixed extractants (TOA and TOMAC	Anil Kumar and Avinash Thakur	Chemical Engineering Research Bulletin	2019	06	0	SLIET
Lactic acid and its separation and purification techniques: A Review	Anil Kumar, Avinash Thakur, and Parmjit Singh Panesar	in Environmental Science and Bio/ Technology	2019	71	06	SLIET
Reactive Extraction of Lactic Acid using Environmentally Benign Green Solvents and Synergistic Mixture of Extractants	Anil Kumar and Avinash Thakur	Scientia Iranica, 26(6):3456-3467	2019	47	27	SLIET
Fabrication of calcium hydroxyapatite incorporated polyurethane-graphene oxide nanocomposite porous scaffolds from poly (ethylene terephthalate) waste: A green route toward bone tissue engineering	Amandeep Singh; Sovan Lal Banerjee; Vandana Dhiman; Sanjay Kumar Bhadada; Priyatosh Sarkar; Moumita Khamrai; Kamlesh Kumari; Patit Paban Kundu,	Elsevier Scopus	2020	0	0	SLIET
Tailoring of Electromagnetic Absorption in Substituted Hexaferrites from 8.2 GHz to 12.4 GHz	Anupma Marwaha ,Harsimrat Kaur, ,Charanjeet Singh , Sukhleen Bindra Narang, Rajshree Jotania,Yang Bai, Sanjay R. Mishra, Dharmendra Singh, A.S.B.	Journal of Electronic Materials	2020	93	02	SLIET

	Sombra, Madhav Ghimire, And Preksha Dhruv					
Optimized null steering in compact bowtie antenna array using simulation driven Taguchi method	Anupma Marwaha , Baljinder Kaur	Journal of Metrology and Measurement Systems	2020	NIL	0	SLIET
Modelling and simulation of vertical fin style aluminium heat sink for controlled thermal compensation in absorber loaded antenna array	Surekha Rani, Anupma Marwaha, Sanjay Marwaha	Journal of communication technology and electronics, Springer	2020	22	0	SLIET
Nanocomposite graphene based tunable absorber for combating electromagnetic pollution	Surekha Rani, Anupma Marwaha, Sanjay Marwaha	Current Nanoscience, Bentham Science Publisher	2020	40	0	SLIET
Graphene based Multiband Frequency Antipodal Vivaldi Nanoantenna for UWB Applications	Gaurav Bansal, Anupma Marwaha, Amanpreet Singh, Rajni Bala, Sanjay Marwaha	Journal of Computational Electronics	2020	33	0	SLIET
A triband slotted bow-tie wideband THz antenna design using graphene for wireless applications	Gaurav Bansal, Anupma Marwaha , Amanpreet Singh, Rajni Bala, Sanjay Marwaha	Optik	2019	57	6	SLIET
Investigation of structural, hysteresis and electromagnetic parameters for microwave absorption application in doped Ba–Sr hexagonal ferrites at X-band	Harsimrat Kaurab, AnupmaMarwahaa , CharanjeetSingh, Sukhleen Bindra Narang, Rajshree Jotania, Silvia Jacobo, A.S.B.Sombra, S.V.Trukhanov, A.V.Trukhanov, Preksha Dhruv	Journal of Alloys and Compounds	2019	160	9	SLIET
Synthesis and Validation of a Cu Meta-Based Wideband Microwave Absorber on an Antenna Array	Surekha Rani, Anupma Marwaha, Sanjay Marwaha, Sukhleen Bindra, Murthy Chavali & P. Narasimha Reddy	Journal of Electronic Materials	2019	93	0	SLIET
Design of titanium	Veerpal Kaur and	Optical Fiber Technology	March	58	24	SLIET

nitride coated PCF-SPR sensor for liquid sensing applications	Surinder Singh		2019			
Design approach of solid-core photonic crystal fiber sensor with sensing ring for blood component detection	Veerpal Kaur and Surinder Singh, “”	Journal of Nanophotonic	May 2019	37	04	SLIET
Possibilities of laser amplification and measurement of the field structure of ultrashort pulses in the range of 2.7 - 3 μm in erbium-ion-doped tellurite glass fibres	Elena Anashkina, Vitaly Dorofeev, S.V. Muravyev, Sergei Motorin, Aleksei Vyacheslavovich Andrianov, Arseny A Sorokin, Maksim Koptev, Surinder Singh, and Arkady Kim	Quantum Electronics	2019	43	04	SLIET
Design of XPM based all optical contention detection circuit at 120 Gbps”	Dilbag Singh, Surinder Singh, Vishal Sharma, Sukhbir Singh and Quang Minh NGO,	Optical and Quantum	2019	54	0	SLIET
Design of all optical contention detection circuit based on HNLF at the data rate of 120 Gbps	Surinder Singh, Dilbag Singh, Vishal Sharma, Sukhbir Singh and Quang Minh NGO	Optical Fiber Technology	2019	58	0	SLIET
340-Gb/s PoISK-DP-DQPSK optical orthogonal modulation format with coherent direct detection foe high capacity WDM optical network”	Sukhbir Singh, Surinder Singh, Quang Minh NGO and Amin Malekmohammadi,	Optical Fiber Technology	2019	58	02	SLIET
Reconstruction of optical pulse intensity and phase based on SPM spectra measurements in microstructured tellurite fiber in telecommunication range.	E. A. Anashkina, Maxim Koptev, Alexey Andrianov, Vitaly V. Dorofeev, Surinder Singh, Lovkesh Bhatia, Gerd Leuchs, and Arkady Kim	Journal of Lightwave Technology	2019	191	06	SLIET
Design and analysis of CNTFET based 10T SRAM for high performance at nanoscale	M Kumar, JS Ubhi	International Journal of Circuit Theory and Application	2019	49	02	SLIET
Low leakage zero ground bounce noise	Candy Goyal, Jagpal Singh	Journal of nanoelectronics & optoelectronics	2019	21	0	SLIET

nanoscale full adder using source biasing technique	Ubhi, and Balwinder Raj,					
A low leakage TG-CNTFET–based inexact full adder for low power image processing applications.	Goyal C, Ubhi JS, Raj B	International journal of circuit theory and applications	2019	49	01	SLIET
A survey on QoS mechanisms in WSN for computational intelligence based routing protocol	Kaur, T. and Kumar, D.	Wireless Networks	2020	85	08	SLIET
FPS-MAC: Fuzzy priority scheduling-based MAC protocol for intelligent monitoring systems	Kaur, T. and Kumar, D.	International Journal of Communication Systems	2020	44	0	SLIET
Noninvasive Temperature Measuring and Early Fault Detecting System for Manufacturing Industry	Kumar, D., Suman, K.G.	Mapan - Journal of Metrology Society of India	2019	14	0	SLIET
Performance enhancement of traffic information gathering (PEnTInG) algorithm for vehicular ad-hoc networks	Kumar, R., Kumar, D., Kumar, D.	International Journal of Communication Systems	2019	44	0	SLIET
ETPS-MAC: Energy Traffic Priority Scheduling-based QoS-aware MAC protocol for hierarchical WSNs	Kaur, T., Kumar, D.	International Journal of Electronics	2019	49	01	SLIET
	Kaur, T. and Kumar, D.	International Journal of Wireless and Mobile Computing	2019	17	05	SLIET
QoS mechanisms for MAC protocols in wireless sensor networks: A survey	Kaur, T. and Kumar, D.	IET Communications	2019	58	03	SLIET
Hybrid intelligence based routing protocols in wireless sensor networks: A survey	Kaur, T. and Kumar, D.	International Journal of Sensors, Wireless Communications and Control	2019	05	01	SLIET
On the Design of a Novel Fractal Antenna for Spectrum Sensing in Cognitive Radio	Monika Aggarwal and Amar Partap Singh Pharwaha	Applied Computational Electromagnetics Society Journal (ACES)	2019	28	0	SLIET
On the development of a modified	Gurmeet Singh, AP Singh	Advanced Electromagnetics	2019	11	1	SLIET

Triangular patch antenna array for 4.9 GHz Public Safety WLAN						
On the Design of 2×2 MIMO Fractal Antenna Array for C band applications	Gurmeet Singh, A.P. Singh	Jounal (International Journal of Innovative Technology and Exploring Engineering)	2019	40	0	SLIET
Design of micro-machined modified Sierpinski gasket fractal antenna for satellite communications	Ashish Kumar, Amar Partap Singh	International Journal of RF and Microwave Computer-Aided Engineering	2019	36	4	SLIET
Detection of Foreign Materials in Wheat Kernels using Regional Texture Descriptors	N. Julka and A. P. Singh	International Journal of Recent Technology and Engineering	2019	17	0	SLIET
Machine vision based detection of foreign material in wheat Kernels using shape and size descriptors	N. Julka and A. P. Singh	International Journal of Advanced Science and Technology	2019	17	0	SLIET
Detection of Foreign Materials in Wheat Kernels using Boundary Descriptors	N. Julka and A. P. Singh	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	2020	40	0	SLIET
Development of a Modified Hilbert Curve Fractal Antenna for Multiband Applications	Ashwini Kumar, Amar Partap Singh Pharwaha	IETE Journal of Research	2020	22	0	SLIET
Multi response optimization of CNC end milling of AISI H11 alloy steel for rough and finish machining using TGRA,	Dr.P.K. Singh	Material Today	2020	159	02	SLIET
Optimization of surface roughness and hole diameter accuracy in drilling of EN-31 alloy steel–A TGRA based analysis	Dr. P.K. Singh	Material Today	2020	159	01	SLIET
Investigation of Tribological Behavior of Al-4032 Based Metal Matrix Composite using Taguchi's Optimization Approach, Materials	Dr. P.K. Singh	Material Today	2019	159	0	SLIET
Microstructural and Mechanical Characterization of Al-4032 Based Metal	Dr.P.K. Singh	Material Today	2019	159	0	SLIET

Matrix Composites,						
Investigation of wear characteristics of Al-4032 based metal matrix composite using Taguchi's optimization approach,	Dr.P.K. Singh	Material Today	2019	159	0	SLIET
Influence of different filler weld wire chemistries on metallurgical and mechanical behavior of ultrahigh strength steel welded joints",	Dr.A.S. Shahi	Journal of Materials	2019	164	02	SLIET
Metallurgical and corrosion characterization of electron beam welded duplex stainless steel joints	Dr.A.S.Shahi	Journal of manufacturing Process	2020	46	01	SLIET
Weld metal composition and aging influence on metallurgical, corrosion and fatigue crack growth behavior of austenitic stainless steel welds.	Dr.A.S.Shahi	IOP	2019	70	01	SLIET
Metallurgical, fatigue and pitting corrosion behavior of AISI 316 joints welded with Nb based stabilized steel filler	Dr.A.S.Shahi	Springer	2020	41	01	SLIET
Influence of intermetallic precipitation on metallurgical, mechanical and pitting behavior of AISI 2205 duplex stainless steel welded joints,	Dr.M.Majid	IOP	2020	70	01	SLIET
Investigations on High Temperature Wear And Metallurgical Characteristics Of Stellite 6 GTA (Gas Tungsten Arc) Weld Claddings, Mater	Dr.A.S.Shahi	IOP	2020	70	0	SLIET
Optimization of Turning Parameters of Titanium Chrome-moly (Ti-Cr-Mo) Alloy using Taguchi Method	Dr.A.jayant	Indian Journal of Engineering & Materials Sciences	2020	28	0	SLIET
Decision Support Framework for Smart Implementation of	Dr.A.Jayant	Springer, Cham (Scopus).	2020	41	0	SLIET

Green Supply Chain Management Practices						
A robust hybrid multi-criteria decision-making approach for selection of third-party reverse logistics service provider	Dr.A.Jayant	Springer,	2019	41	0	SLIET
Application of Machine Learning Technique for demand forecasting: A Case Study of manufacturing industry	Dr.A.Jayant	Springer,	2019	41	0	SLIET
Low Carbon Supply Chain Management: A Fuzzy-DEMATEL Analysis of Some Practical Issues of Indian Manufacturing Industries	Dr.A.Jayant	Springer,	2019	41	0	SLIET
A novel hybrid MCDM approach based on DEMATEL, AHP and TOPSIS to evaluate green suppliers	Dr.A. Jayant	IOP	2019	70	0	SLIET
Sustainable supplier selection for battery manufacturing industry: A MOORA and WASPAS Based Approach	Dr.A. Jayant	IOP Journal of Physics	2019	70	0	SLIET
An Intelligent Simulation based case study of Indian Micro Small Medium Enterprise (MSME) of farm equipment Manufacturing	Dr.A.Jayant	IOP Journal of Physics	2019	70	0	SLIET
Simulation based design of Production and Multi echelon supply chain network for job shop manufacturing environment	Dr.A.Jayant	IOP Journal of Physics	2019	70	01	SLIET
High temperature corrosion performance of ceria doped Cr3C2-NiCr coated superalloys under actual medical waste atmosphere	Er. Lalit Ahuja	Materials Today	2020	27	0	SLIET
Evaluation of high temperature oxidation performance of bare	Lalit Ahuja	Materials Today	2020	27	0	SLIET

and coated T91 steel,						
Arduino Based Economic and Real Time Consumption Rate Computing	Dr.Sunil kumar	Universal Journal of Mechanical Engineering	2019	02	0	SLIET
Signal Processing for Enhancing Impulsiveness Toward Estimating Location of Multiple Roller Defects in a Taper Roller Bearing"	Dr.Rajesh Kumar		2020		03	SLIET
Worm and wheel gears fault frequency extraction using minimum entropy deconvolution based envelope of the vibration signal,	Dr.Rajesh kumar	IOP Journal of Physics	2019	70	0	SLIET
Development of exothermic flux for enhanced penetration for submerged arc welding process	Dr.Kulwant Singh	Journal of Advanced Manufacturing Systems,	2020	16	0	SLIET
Some feasible studies for recycling of steel slag as a useful flux for submerged arc welding	Dr.Kulwant Singh	Journal of Advanced Manufacturing Systems,	2020	16	0	SLIET
Some studies into weldability of rice husk ash aluminium matrix composite using TIG welding,	Dr.Shankar Singh	Material Today	2020	27	0	SLIET
Assessment of Creep in Composite Disc having Exponential, Hyperbolic and Uniform Thickness Profiles	Dr.R.K.Saxsena	Material Today	2020	27	0	SLIET
Finite element simulation of Stress Corrosion cracking in Austenitic Stainless Steel using Modified Lemaitre Damage Model	Dr.R.K.Saxsena	Material Today	2020	27	0	SLIET
An examination of mechanical properties of dissimilar AISI 304 stainless steel and copper weldment obtained using GTAW	Dr.R.K.Saxsena	Material Today	2020	27	0	SLIET
Analysis of joint overlap during friction spin welding of plastics	Dr.R.K. Saxsena	Material Today	2020	27	0	SLIET

Determination of Johnson-Cook material model for weldment of mild steel	Dr.R.K Saxsena	Material Today	2020	27	0	SLIET
Numerical simulation of fracture behavior under high-velocity impact for Aluminium alloy 6060 Target plate	Dr.R.K. Saxsena	Material Today	2020	27	0	SLIET
Prediction of bending behaviour for Laser Forming of Lime coated plain Carbon steel using Finite Element Method	Dr.R.K. Saxsena	Material Today	2020	27	0	SLIET
An Experimental investigation into heat transfer characteristics of Cu nanofluid for automobile radiator	Dr.R.K. Yadav	IOP Journal of Physics	2019	70	0	SLIET
Multi-response Optimization using TGRA for End Milling of AISI H11 Steel Alloy Using Carbide End Mill	Dr.P.K. Singh	IOP Journal of Physics	2019	70	02	SLIET
Manufacturing Excellence through Total Productive Maintenance Implementation in an Indian Industry	Dr.P.Gupta	International Journal of Mechanical and Production Engineering	2019	16	0	SLIET
Fabrication of μ-Channels on Pure-Ti using USM and Optimization of Process Parameters	Dr.P.Gupta	International Journal of Mechanical and Production Engineering	2019	16	0	SLIET
Performance and Emission testing of Diesel Engine using blends of Biodiesel from Castor Oil and Neem Oil prepared using Lithium Doped CaO Nano-Catalyst	Dr.P.Gupta	Springer Proceeding Lecture Notes in Mechanical Engineering	2019	41	0	SLIET
Identifying the most influencing success factors of TQM implementation in manufacturing industries using Analytical Hierarchy Process	Dr.P.Gupta	Proceedings of the International Conference on Industrial Engineering and Operations Management Dubai	2020		0	SLIET
To Investigate the Relationship between TQM Enablers Applicable In Indian	Dr.P.Gupta	Proceedings of the International Conference on Industrial Engineering and Operations Management	2020		0	SLIET

Engineering Educational Institutes		Dubai				
Hybrid Response Surface Method-African Buffalo Optimization Technique for Ultrasonic Production of Biodiesel from Waste Cooking Oil using Li doped CaO Nanocatalys	Dr.P.Gupta	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	2020	40	0	SLIET
Composite approach of RSM-ABO for optimization of production of Ricinus Communis bio diesel using Lithium doped CaO Nanocatalys	Dr.P.Gupta	International journal of advances in Science and Technology	2020	17	0	SLIET
Case Study on Business Excellence Issues of an Indian Automobile Manufacturer using SAP-LAP Framework	Dr.P.Gupta	International Journal on Emerging Technologies	2020	03	0	SLIET
Multi-Objective Optimization of Electro Discharge Machining of Nimonic 75 Using Taguchi Based Grey Relational Analysis	Dr.Shankar singh	Journal of Advanced Manufacturing Systems	2020	14	0	SLIET
Multi-objective optimization of Electrical Discharge Machining of Nimonic 75 using Teaching Learning Based Optimization(TLBO) Algorithm	Dr.Shankar singh	Materials Today	2020	27	0	SLIET
An Exploratory Investigation and Optimization of Taper Cutting Operation with Wire Electro Discharge Machining	Dr.Shankar singh		2020		0	SLIET
Support Vector Machine Model for Demand Forecasting in an Automobile parts industry:	Dr.A.Jayant	International Research Journal of Science, Engineering and Technology	2019	24	0	SLIET
Application of Machine Learning Techniques in Supply Chain Management	Dr.A.Jayant	International Research Journal of Management Sciences & Technology	2019	24	0	SLIET

Evaluating Low Carbon Supply Chain Practices in India using Fuzzy Tool based Importance and Performance Analysis	Dr.A.Jayant	Journal of Energy, Environment & Carbon Credits	2019	26	0	SLIET
Electro Discharge Drilling (EDD) of Rice Husk Ash Reinforced Aluminium Matrix Composite Using Different Electrode Shapes	Dr.Shankar Singh	Journal of Emerging Technologies and Innovative Research	2019	03	0	SLIET
Some studies into Slicing of Titanium alloy using Wire Electro-Discharge Machining Process	Dr.Shankar Singh	Journal of Emerging Technologies and Innovative Research	2019	03	0	SLIET
Effect of post weld thermal aging (PWTA) sensitization on micro-hardness and corrosion behavior of AISI 304 weld joints	,AS Shahi	Journal of Physics:	2019	70	5	SLIET
Sensitization Studies on the Metallurgical and Corrosion Behaviour of AISI 304 SS Welds M Kumar, A Sharma, AS Shahi	AS Shahi	Advances in Manufacturing Processes	2019	18	2	SLIET
Metallurgical, impact and fatigue performance of electron beam welded duplex stainless steel joints	AS Shahi	Journal of Materials Processing Technology	2019	173	4	SLIET
Erosion Behavior of Hydrophobic Polytetrafluoroethylene (PTFE) Coatings with Different Thicknesses'	Er.Anuj Bansal	Journal of manufacturing Process	2020	46	0	SLIET
Influence of Cryogenic Treatment on Mechanical Performance of Friction Stir Al-Zn-Cu Alloy Weldments	Er.Anuj Bansal	Journal of manufacturing Process	2020	46	0	SLIET
Laser Cladding Technique for Erosive Wear Applications:	Er.Anuj Bansal	Journal of manufacturing Process	2020	46	02	SLIET
Slurry Erosion Behavior of HVOF-Sprayed Wc-10Co-4cr Coated SS 316 Steel	Er.Anuj Bansal	Journal of Thermal spray Technology	2019	80	01	SLIET

with and without PTFE Modification						
A novel health indicator developed using filter-based feature selection algorithm for the identification of rotor defects" Proceedings of the Institution of Mechanical Engineers Part O	Dr.Anil Singla	Journal of Risk and Reliability	2020	26	0	SLIET
Bearing defect size assessment using wavelet transform based Deep Convolutional Neural Network (DCNN	Dr.Anil Singla	Alexandria Engineering Journal (Elsevier	2020	46	0	SLIET
Development of LDA Based Indicator for the Detection of Unbalance and Misalignment at Different Shaft Speeds	Dr.Anil Singla	Springer	2019	41	0	SLIET
Abrasive wear behavior of cryogenically treated Boron Steel (30 MnCrB4) used in rotavator blades,	Dr.Anil Singla	SCIE	2019		0	SLIET
Influences of Latent Heat on Temperature Field, Weld Bead Dimensions and Melting Efficiency During Welding Simulation	Dr.R.K.Saxsena	Defense Science Journal	2020	30	0	SLIET
Creep Response of Rotating Composite Discs having Exponential, Hyperbolic, Linear and Constant Thickness Profiles	Dr.R.K.Saxsena	Defense Science Journal	2020	30	0	SLIET
Sustainability and machinability improvement of Nimonic-90 using indigenously developed green hybrid machining technology	Dr.Anil Singla	Journal of Cleaner production	2020	173	07	SLIET
Impact of Cryogenic Treatment on HCF and FCP Performance of β-Solution Treated Ti-6Al-4V ELI Biomaterial	Dr.Anil Singla	Journal of Materials Engineering and Performance	2020	59	03	SLIET
Machinability	Dr.Anil Singla	International Journal of	2020	20	05	SLIET

investigations of hardened steel with biodegradable oil-based MQL spray system		Advanced Manufacturing Technology				
Impact of Cryogenic Treatment on Mechanical Behavior and Microstructure of Ti-6Al-4V ELI Biomaterial	Dr.Anil Singla	Journal of Materials Engineering and Performance	2019	59	03	SLIET
Parametric optimization of USM parameters by Taguchi and NSGA-II for the development of μ-channels on pure titanium. Grey Systems: Theory and Application	Dr.P.Gupta	ESCI Indexed Journal	2020	19	0	SLIET
Modelling and optimization of novel biodiesel production from non-edible oil with musa balbisiana r oot using hybrid response surface methodology along with african buffalo optimization	Dr.P.Gupta	SPRINGER	2020	41	0	SLIET
Physicochemical, molecular and thermal properties of high-intensity ultrasound (HIUS) treated protein isolates from album (*Chenopodium album*) seed.	Nisar A. Mir, Charanjit S. Riar, Sukhcharn Singh	Food Hydrocolloids	2019	2	14	SLIET
Effect of chemical composition, granule structure and crystalline form of pigmented rice starches on their functional characteristics	Farhan Mohiuddin Bhat, Charanjit Singh Riar	Food Chemistry	2019	1	03	SLIET, Longowal
Structural modification of quinoa seed protein isolates (QPIs) by variabletime sonification for improving its physicochemical and functional characteristics,	Nisar A. Mir, Charanjit S. Riar, Sukhcharn Singh	Ultrasonics–Sonochemistry	2019	1	09	SLIET, Longowal
Sensory, rheological and chemical characteristics during	Ramandeep Kaur, Charanjit S. Riar	Journal of Food Science and Technology	2019	1	08	SLIET, Longowal

storage of set type full fat yoghurt fortified with barley β-glucan,						
Composition and functionality of bee pollen: A review,	Mamta Thakur and Vikas Nanda	Trends in Food Science & Technology	2020	2		SLIET, Longowal
Sugar profile and rheological behaviour of four different Indian honey varieties.	Rajni Kamboj, Gulzar Ahmad Nayik, Manav Bandhu Bera, Vikas Nanda	Journal of Food Science and Technology	2020	1		SLIET, Longowal
Analysis of crystallization phenomenon in Indian honey using molecular dynamics simulations and artificial neural network.	Rishi Rabindra Naik, Mamta Thakur and Vikas Nanda	Food Chemistry	2019	1		SLIET, Longowal
Moisture sorption isotherms and quality characteristics of onion powder during storage as affected by sprouting.	Ishrat Majid, Shafat Hussain and Vikas Nanda	Journal of Food Measurement and Characterization	2019	0		SLIET, Longowal
Impact of sprouting on the degradation kinetics of color and vitamin C of onion powder packaged in different packaging materials.	Ishrat Majid, Shafat Hussain and Vikas Nanda	Journal of Food Processing and Preservation.	2019	1		SLIET, Longowal
Unmasking the Many Faces of Giloy (*Tinospora cordifolia* L.): A Fresh Look on its Phytochemical and Medicinal Properties.	Verma, D. K., Kimmy, G., Kumar, P. and El-Shazly, M.	*Current Pharmaceutical Design.*	2020	0	0	SLIET, Longowal
Exploring the influence of heat moisture treatment on physicochemical, pasting, structural and morphological properties of mango kernel starches from Indian cultivars,	Indu Bharti, Sukhcharn Singh, DC Saxena,	LWT-Food Sci. & Technology	2019	1	03	SLIET, Longowal
Experimental and modeling studies of the flow, dynamic and creep recovery properties of pearl millet starch as affected by concentration and cultivar type,	Mamta Bhardwaj, Kawaljit Singh Sandhu, DC Saxena,	International Journal of Biological Macromolecules,				SLIET, Longowal
Valuation of *Citrus reticulata* (kinnow) peel for the extraction	A. Saini, Parmjit S. Panesar, M.B. Bera	*Biomass Conv. Bioref*.	2020	1	04	SLIET, Longowal

of lutein using ultrasonication technique.						
Recent trends on the valorization strategies for the management of citrus by-products,	Divyani Panwar, Parmjit S. Panesar & Harish K. Chopra	*Food Reviews International*	2019	1	3	SLIET, Longowal
L(+) lactic acid production by immobilized *Lactobacillus casei* using low cost agro-industrial waste as carbon and nitrogen source.	Avinash Thakur, Parmjit S. Panesar and Manohar S. Saini	*Waste and Biomass Valorization*	2019	1	8	SLIET, Longowal
A comparative study on experimental and response surface optimization of lactic acid synergistic extraction using green emulsion liquid membrane.	Anil Kumar, Avinash Thakur and Parmjit S. Panesar	*Separation and Purification Technology*	2019	2	10	SLIET, Longowal
Peroxidase as indicator enzyme of blanching in bottle gourd (*Lagenaria siceraria*): Changes in enzyme activity, color, and morphological properties during blanching.	Suheela Bhat, Charanjiv Singh Saini, Manish Kumar and Harish Kumar Sharma. 2019.	Journal of Food Processing and Preservation	2019	0	0	SLIET, Longowal
Algorithm for processing high definition images for food colourimetry.	P.S. Minz, Ish Kumar Sawhney and Charanjiv Singh Saini.	Measurement,	2020	0	0	SLIET, Longowal
A Comparative Study on the extraction and quantification of polyphenols from citrus peels using maceration and ultrasonic technique.	A. Saini, Parmjit S. Panesar, M.B. Bera.	*Current Research in Nutrition and Food Science*,	2019	1	4	SLIET, Longowal
A comparative study on experimental and response surface optimization of lactic acid synergistic extraction using green emulsion liquid membrane.	Anil Kumar, Avinash Thakur and Parmjit S. Panesar	*Separation and Purification Technology,*	2019	2	10	SLIET, Longowal
Classification, Functional Properties and Health Related Issues Associated with Consumption of Fats: A Review, International	Farhan Mohiuddin Bhat, Shruti Chandel, Sangita Sood, Yadvinder S Dhaliwal, Charanjit S Riar	Journal of Pharmacy and Pharmaceutical Research,	2019	0	0	SLIET, Longowal

Effects of Milling on the Bran Removal, Nutritional and Cooking Characteristics of Traditional Rice Cultivars,	Bhat FM, Riar CS and Sangita S	Food Science and Nutrition Technology	2019	01	01	SLIET, Longowal
Formulation and characterization of cookies prepared from the composite flour of germinated kidney bean, chickpea, and wheat,	Mandeep Singh Sibian, Charanjit Singh Riar.	Legume Science	2020	01	01	SLIET, Longowal
Effect of storage period and packaging materials on textural, phenolic, antioxidant properties of cookies made from raw and germinated minor millet blends flour.	Seema Sharma, Charanjit S Riar	Annals. Food Science and Technology	2020	01	01	SLIET, Longowal
Bioactive compounds from cereal and pulse processing byproducts and their potential health benefits.	A. Saini, Divyani Panwar, Parmjit S. Panesar, M.B. Bera	*Austin Journal of Nutrition and Metabolism*,	2019	0	0	SLIET, Longowal
Kinetic study of extrusion cooking of corn-rice flour blend fortified with nutraceutical concentrates with respect to various physical parameters,	Jasmeet Kour, Sukhcharn Singh, Dharmesh C Saxena	British Food Journal,	2019	0	0	SLIET, Longowal
Tensile Strength and Solubility Studies of Edible Biodegradable Films Developed from Pseudo-cereal Starches: An Inclusive Comparison with Commercial Corn Starch,	Narender Kumar Chandla, Sunil Kumar Khatkar, Sukhcharn Singh, DC Saxena, Navdeep Jindal, Venus Bansal, Nitin Wakchaure,	Asian Journal of Dairy & Food Research	2020	0	0	SLIET, Longowal
Quality attributes of germinated amaranth flour pasta supplemented with different hydrocolloids,	Arti Chauhan, DC Saxena, Sukhcharn Singh,	Journal of Advances in Food Science & Technology,	2019	01	01	SLIET, Longowal
On a reduced cost derivative-free higher-order numerical algorithm for nonlinear systems	JR Sharma, D Kumar	Computational and Applied Mathematics	2020	0	0	SLIET, Longowal
On derivative free multiple-root finders with optimal fourth	JR Sharma, S Kumar, L Jäntschi	Mathematics	2020	0	0	SLIET, Longowal

order convergence						
An optimal fourth order derivative-free numerical algorithm for multiple roots	S Kumar, D Kumar, JR Sharma, C Cesarano, P Agarwal, YM Chu	Symmetry	2020	1	2	SLIET, Longowal
On the local convergence and complex geometry of eighth order iteration function	IK Argyros, JR Sharma, S Kumar	Annales Univ. Sci. Budapest	2019	0	0	SLIET, Longowal
Optimal one-point iterative function free from derivatives for multiple roots	D Kumar, JR Sharma, IK Argyros	Mathematics	2020	0	0	SLIET, Longowal
Local convergence of an efficient multipoint iterative method in Banach space	JR Sharma, S Kumar, IK Argyros	Algorithms	2020	0	0	SLIET, Longowal
Local convergence and attraction basins of higher order, Jarratt-like iterations	JR Sharma, D Kumar, IK Argyros	Mathematics	2019	0	0	SLIET, Longowal
On a class of optimal fourth order multiple root solvers without using derivatives	JR Sharma, S Kumar, L Jäntschi	Symmetry	2019	0	0	SLIET, Longowal
Convergence analysis and complex geometry of an efficient derivative-free iterative method	D Kumar, JR Sharma, L Jäntschi	Mathematics	2019	0	0	SLIET, Longowal
Generalized Kung–Traub method and its multi-step iteration in Banach spaces	JR Sharma, S Kumar, IK Argyros	Journal of Complexity	2019	1	1	SLIET, Longowal
An efficient class of weighted-Newton multiple root solvers with seventh order convergence,	JR Sharma, D Kumar, C Cattani	Symmetry	2019	0	0	SLIET, Longowal
A modified Newton–Özban composition for solving nonlinear systems	R Sharma, JR Sharma, N Kalra	International Journal of Computational Methods	2019	0	0	SLIET, Longowal
One-point optimal family of multiple root solvers of second-order	D Kumar, JR Sharma, C Cesarano	Mathematics	2019	0	0	SLIET, Longowal
Numerical inverse Laplace transform based on Bernoulli polynomials operational matrix for solving nonlinear differential equations	Dimple Rani and Vinod Mishra	Results in Physics (Elsevier)	2020	1	1	SLIET, Longowal
Numerical inverse	Dimple Rani and	Symmetry-	2019	1	5	SLIET, Longowal

Laplace transform for solving a class of fractional differential equations	Vinod Mishra and Carlo Cattani	Basel (MDPI)				
Solving linear fractional order differential equations by Chebyshev polynomials based numerical inverse Laplace transform	Dimple Rani and Vinod Mishra	Mathematics in Engineering, Science and Aerospace	2019	0	0	SLIET, Longowal
Some new harmonic mappings convex in one direction and their convolution	Chinu Singla, Sushma Gupta and Sukhjit Singh	Filomat	2019	0	0	SLIET, Longowal
On a subclass of univalent harmonic mappings convex in the imaginary direction	Deepali Khurana, Sushma Gupta and Sukhjit Singh	Adv. Math.Sci. J	2020	0	0	SLIET, Longowal
Some norm inequalities for operators	Y. Kapil, R. Pal, M. Singh and J.S.Aujla	Advances in Operator Theory	2019	0	0	SLIET, Longowal
Inertia of some conditionally negative definite matrices	A. Aggarwal and M. Singh	Advances in Operator Theory	2019	0	0	SLIET, Longowal
On a question of Bhatia, Friedland and Jain	Y. Kapil, R. Kaur and M. Singh	Linear and Multilinear Algebra	2019	0	0	SLIET, Longowal
Phase transition of cosmological model with statistical techniques	Mishra R.K. Dua Heena,	Astrophysics and Space Science	2020	0	0	SLIET, Longowal
Cosmological models in Sáez-Ballester theory with bilinear, varying deceleration parameter	Mishra R.K., Chand A.	Astrophysics and Space Science	2019	0	0	SLIET, Longowal
Bulk viscous string cosmological models in Saez-Ballester theory of gravity	Mishra R.K. Dua Heena,	Journal of Astrophysics and Space Science	2019	1	3	SLIET, Longowal
Product Strategies by Small Retailers in Punjab,	Pankaj Kumar, Sanjeev Bansal, Mahesh Arora & Kirna Rani	International Journal of Scientific & Technology Research	2019	0	0	SLIET, Longowal
Creating Employment in some Indian Industries by reducing the working shift timing	Anil Kumar, Renu, Sanjeev Bansal	IOP Conference Series: Materials Science and Engineering	2020	0	0	SLIET, Longowal
influence of Social Media on consumer purchase intention	Renu, Sanjeev Bansal, Vandana Gupta	International Journal of Scientific & Technology Research	2020	0	0	SLIET, Longowal
Marketing, Mobile and	Bharti, Sanjeev	Psychosocial: International	2019	0	0	SLIET, Longowal

future of Mobile Advertisement: Life Changing through Mobile	Kumar Garg & Mandeep Ghai	Journal of Psychosocial Rehabilitation				
Autobiographical Elements And Construction of Self In Plays of Mahesh Dattani,	Monika Kapil and Mahesh Kumar Arora	Think India Journal	2019	0	0	SLIET, Longowal
Mahesh Dattani's Final Solutions: A Peep into the Mannerism of Men and Women, and Their Diasporic Identity,	Monika Kapil and Mahesh Kumar Arora	, Alochana Chakra Journal	2020	0	0	SLIET, Longowal
Role of Industry-Institute Interaction To Promote Education And Entrepreneurship	Kirna Rani, Sanjeev Bansal, Pankaj Kumar	Think India Journal	2019	0	0	SLIET, Longowal
A Study of Financial Challenges Faced By Small Entrepreneurs in India	Kirna Rani, Sanjeev Bansal, Pankaj Kumar	Our Heritage Journal	2019	0	0	SLIET, Longowal
Impact of Training Programs on the Performance of Employees of Banking Sector: A Review	Manuja Garg, Sanjeev Bansal	Our Heritage Journal	2019	0	0	SLIET, Longowal
Goods and Service tax in India-Issues and Challenges	Seema Jain, Pawan Kumar Dhiman	Journal of Information and Computational Science (China) Zhongshan Daxue University	2019	0	0	SLIET, Longowal
Public Transport System-A Boon to National Development	Pawan Kumar Dhiman, Seema Jain	Journal of Gujarat Research Society	2019	0	0	SLIET, Longowal
A Study of Consumer Behaviour on Selecting and Switching Telecom Services in Patiala City	Sanjeev Kumar Garg and Gurpreet Sandhu	International Journal of 360 Degree Management Review	2019	0	0	SLIET, Longowal
Advertisement and its Influence on Consumer Behaviour: An analysis reference to FMCG products	Bharti, Garg, Sanjeev Kumar and Mandeep Ghai	Studies in Indian Place Names	2020	0	0	SLIET, Longowal
Factors Affecting Consumer Purchase Intention for Organic Food : A Review	Pardeep Kumar Jain	Alochana Chakra Journal	2019	0	0	SLIET, Longowal
Synthesis of a new tetradentatechelator with 1-Hydoroxy-2(1H)-pyridinone (HOPO) as chelating unit: Interaction with Fe (III), solution	B.K. Kanungo, MinatiBaral, Dibyajit Dash	J. Molecular Structure	2020	10	0	SLIET, Longowal

thermodynamics and DFT studies						
Photophysical Studies of a Catechol Based PolyfunctionalDipodal Chelator: Application for Optical Probe for Selective Detection of Fe(III)	B K Kanungo,Minati, Baral, Vijay Dangi	Journal of fluorescence	2020	10	0	SLIET, Longowal
Dipodal Molecular Device as Fluorescent Sensor for Na(I) Detection	B K KanungoMinati, Baral, Vijay Dangi	Journal of Applied Spectroscopy	2020	10	0	SLIET, Longowal
Experimental and Theoretical Studies on Structure, Bonding and Luminescence Properties of Eu(III) and Tb(III) Complexes of a New Macrocyclic Based 8HQ Ligand	B K Kanungo, Rohini, MinatiBaral	Journal of Coordination Chemistry	2019	10	0	SLIET, Longowal
Structural effect on the central cavity of a pendent 12N3 macrocycle on bonding and photophysical properties of Eu^{3+} and Tb^{3+} complexes: Experimental and theoretical study	B K Kanungo, Rohini, MinatiBaral	Journal of Molecular Structure	2019	10	0	SLIET, Longowal
Study for the Development of a Cyclohexane Based Tripodal Molecular Device as "OFF-ON-OFF" pH Sensor and Fluorescent Iron Sensor	B. K. KanungoMinati, Baral, Vijay Dangi	Current Analytical Chemistry	2019	10	0	SLIET, Longowal
Experimental and theoretical investigations of Mn-N-co-doped TiO_2 photocatalyst for visible light induced degradation of organic pollutants	Dhiraj Sud N Sharotri, D Sharma	Journal of Materials Research and Technology	2019	20	19	SLIET, Longowal
Investigations on amphoteric Chitosan/TiO_2 bio-nanocomposites for application in visible light induced photocatalytic degradation	Dhiraj Sud M. Bahal, N. Kaur, N. Sharotri	Advances in Polymer Technology	2019	20	03	SLIET, Longowal
A Review on High Performance Liquid Chromatographic	DhirajSud, G. Kaur Sonali Garg, Pratima	Current Analytical Chemistry	2020	20	0	SLIET, Longowal

Methods for the Determination of Metformin	Sharma					
Development of Simple, Facile Spectrophotometric Method for Determination of Metformin Hydrochloride in Aqueous Medium	Dhiraj Sud, Sonali Garg, Pratima Sharma	J Pharm Drug Deliv Res	2020	20	0	SLIET, Longowal
Synthesis and applications of carbohydrate based chiral ionic liquids as chiral recognition agents and organo-catalysts	Harish Kumar Chopra and Nirmaljeet Kaur	Journal of Molecular Liquids	2020	14	05	SLIET, Longowal
Optimization of process variables of probe ultrasonic-assisted extraction of phenolic compounds from the peel of *Punicagranatum* Var. Bhagwa and its chemical and bioactivity	Harish Kumar Chopra, MB Bera, R Foujdar	Journal of Food Processing and	2020	20	02	SLIET, Longowal
Chiral Recognition Methods in Analytical Chemistry: Role of the Chiral Ionic Liquids	Harish Kumar Chopra, Avtar Singh,Nirmaljeet Kaur	Crit. Rev. Anal. Chem.	2019	20	07	SLIET, Longowal
Recent Trends on the Valorization Strategies for the Management of Citrus By-products,	Harish Kumar Chopra,P.S.Panesar, Divyani Panwar	Food Rev. International	2019	20	01	SLIET, Longowal
Recent Advances in Applications of Supported Ionic Liquids	Harish Kumar Chopra,Pawanpreet Kaur	Curr. Org. Chem	2019	20	0	SLIET, Longowal
Ultrasound assisted facile synthesis and antimicrobial studies of alkanediyl-bis-thiazolidi-4-one and alkanediyl-thiazinz-4-ones.	R.P. Chaudhary, Amritpal Kaur, A. P. Kaur, P. Gautan, D. Gautam	*Journal of Heterocyclic Chemistry*	2019	13	0	SLIET, Longowal
Correlation study among the extraction techniques, phytochemicals, and antioxidant activity of *Nepeta spicata* aerial part	Damanjit Singh Cannoo Poonam Kumari Patial, Ajay Sharma, Inderpal Kaur	Biocatalysis and Agricultural Biotechnology	2019	2	0	SLIET, Longowal
Phytochemical profile,	Damanjit Singh	Natural Product Research	2019	2	01	SLIET,

antioxidant potential and DFT study of *Araucaria columnaris*(G. Forst.) Hook. Branch extracts	Cannoo, Poonam Kumari Patial					Longowal
Evaluation of volatile compounds, phenolic acids, antioxidant potential and DFT study of essential oils from different parts of *Araucaria columnaris* (G. Forst.) Hook. from India	Damanjit Singh Cannoo, Poonam Kumari Patial	Food and Chemical Toxicology	2020	2	0	SLIET, Longowal
A review of bischalcones: synthesis and pharmacological applications	Himanshu Rani, V. Bhardwaj	International Journal of Research and Analytical Reviews	2019	2	0	SLIET, Longowal
Advances in urea and thiourea catalyzed ring opening polymerization: A brief overview	Payal Malik, Isha Jain	Eur. Polym. J.	2020	8	0	SLIET, Longowal
A conglomerated ion-motion and crisscross search optimizer for electric power load dispatch	Mohit Kumar and J.S. Dhillon	*Applied Soft Computing Journal,* vol. 83, 2019, 105641, ISSN: 1568-4946	2019		2	SLIET, Longowal
Profit based unit commitment using memetic binary differential evolution algorithm	Jatinder Singh Dhaliwal, J.S. Dhillon	*Applied Soft Computing Journal*, vol. 81, 2019, 105502, ISSN: 1568-4946	2019		5	SLIET, Longowal
Multi-objective combined heat and power unit commitment using particle swarm optimization	Himanshu Anand, Nitin Narang and J.S. Dhillon	*Energy*, Vol. 172, 2019, pp.794-807, ISSN: 0360-5442, IF 4.968	2019		14	SLIET, Longowal
Ameliorated grey wolf optimization for economic load dispatch	Diljinder Singh and J.S. Dhillon	*Energy*, Vol 169, 2019, pp. 398-419, ISSN: 0360-5442, IF 4.968	2019		24	SLIET, Longowal
Design and Analysis of a New Improved Force Linear Switched Reluctance Motor for Transit Application	N Prasad, S Jain, S Gupta	*IETE Journal of Research*, 1-14, 2019	2019		1	SLIET, Longowal
Measurement and Optimization of Performance Parameters of Linear Switched Reluctance	N Prasad, S Jain, S Gupta	*MAPAN*, 1-9, 2019	2019		0	SLIET, Longowal

Motor Using Finite Element Method						
Electrical Components of Maglev Systems: Emerging Trends	N Prasad, S Jain, S Gupta	*Urban Rail Transit*, 1-13, 2019	2019		4	SLIET, Longowal
SEIG-based renewable power generation and compensation in MVDC ship power system	K Tandekar, A Ojha, S Das, P Swarnkar, S Jain	*international Transactions on Electrical Energy Systems* 29 (4), e2785, 2019	2019		2	SLIET, Longowal
Five-Level Cascaded H-Bridge MLC-Based Shunt Active Power Filter for Active Harmonics Mitigation in Distributed Network	J Tandekar, A Ojha, S Jain	*Journal of Circuits, Systems and Computers* 28 (02), 1950035, 2019	2019		2	SLIET, Longowal
Automated approaches for ROIs extraction in medical thermography: a review and future directions	Jaspreet Singh, Ajat Shatru Arora	*Multimedia Tools and Applications*, Jan 2019. DOI: 10.1007/s11042-018-7113-z	2019		3	SLIET, Longowal
Recognition of Underlying Causes of Power Quality Disturbances Using Stockwell Transform	Rajat Kumar, Raj Kumar, Sanjay Marwaha, Bhim Singh	*IEEE Transactions on Instrumentation & Measurement*, pp. 1-10, 2019	2019		2	SLIET, Longowal
A triband slotted bow-tie wideband THz antenna design using graphene for wireless applications	Bansal, G., Marwaha, A., Singh, A., Bala, R., Marwaha, S.	*Optik*, 2019	2019		5	SLIET, Longowal
Synthesis and Validation of a Cu Meta-Based Wideband Microwave Absorber on an Antenna Array	Rani, S., Marwaha, A., Marwaha, S.,Chavali, M., Reddy, P.N.	*Journal of Electronic Materials*, 2019	2019		0	SLIET, Longowal
Investigation of Influence of Rotor Geometry on Cogging Torque in Combined Axial Flux Permanent Magnet Synchronous Motor	Gurmeet Singh, Sanjay Marwaha, Ajat Shatru	*International Journal of Engineering and Technology (UAE)*, ISSN: 2227-524X, 2019, Scopus Indexed	2019		0	SLIET, Longowal
Comprehensive Controller Implementation for Wind-PV-Diesel based Standalone Microgrid	M. Rezkallah, Sanjeev Singh, A. Chandra, M. Saad, B. Singh, M. Tremblay and H. Geng	*IEEE Transactions on Industry Applications*, vol. 55, no. 5, pp. 5416-5428, Sept.-Oct. 2019	2019		3	SLIET, Longowal
Impact of Harmonics on Power Transformer Losses and Capacity Using Open DSS	J. Singh Maan, S. Singh and A. Singh	*International Journal of Emerging Electric Power Systems*, vol. 20, no. 4, pp. August 2019	2019		0	SLIET, Longowal

Distribution transformer failure modes, effects and criticality analysis (FMECA)	Jaspreet Singh, Sanjeev Singh and Amanpreet Singh	*Engineering Failure Analysis*, vol.99, pp.180-191, May 2019.	2019		9	SLIET, Longowal
Microgrid: Configurations, Control and Applications	M. Rezkallah, Ambrish Chandra, Bhim Singh and Sanjeev Singh	*IEEE Trans. Smart Grid*, vol. 10, no. 2, pp. 1290-1302, March 2019	2019		6	SLIET, Longowal
Assessment of Energy–Population–Urbanization Nexus with Changing Energy Industry Scenario in India	Avtar, Ram and Tripathi, Saurabh and Aggarwal, Ashwani Kumar	Land, volume 8, number 8, pages 124-128, 2019	2019		2	SLIET, Longowal
Exploring Renewable Energy Resources Using Remote Sensing and GIS—A Review	Avtar, Ram and Sahu, Netrananda and Aggarwal, Ashwani Kumar and Chakraborty, Shamik and Kharrazi, Ali and Yunus, Ali P and Dou, Jie and Kurniawan, Tonni Agustiono	Resources, volume 8, number 3, pages 149-155, 2019	2019		10	SLIET, Longowal
Population–Urbanization–Energy Nexus: A Review	Avtar, Ram and Tripathi, Saurabh and Aggarwal, Ashwani Kumar and Kumar, Panka	Resources, volume 8, number 3, pages -136-142, 2019	2019		16	SLIET, Longowal
Grasshopper Optimization algorithm based approach for the optimization of ensemble classifier and feature selection to classify epileptic EEG signals	Gurwinder Singh, Birmohan Singh, Manpreet Kaur	*Medical and Biological Engineering and Computing,*ISSN: 0140-0118,57(6): 1323-1339, 2019	2019		2	SLIET, Longowal
Modelling of PAFC Based Scattering Monitoring System for the Characterization of the Therapeutic Micro-Bubbles	hor K. Bhardwaj, Surita Maini	*Journal of Biomedical Photonics & Engineering*, DOI 10.18287/JBPE19.05.030303, 2019	2019		0	SLIET, Longowal
Fusion and Enhancement Techniques for Processing of Multispectral Images,	Aggarwal, Ashwani Kumar	Springer, 159–175, 2020	2020		0	SLIET, Longowal

Unmanned Aerial Vehicle: Applications in Agriculture and Environment						
PLS-Based Multivariate Statistical Approach for Soft Sensor Development in WWTP	Barasha Mali, S. H. Laskar	*Control Instrumentation Systems*. Springer, Singapore, 2020. 123-131	2020		0	SLIET, Longowal
Characterization and Measurement of Nanostructured Copper based Electromagnetic Wave Absorber	Surekha Rani, Anupma Marwaha, Sanjay Marwaha, Sukhleen Bindra, Murthy Chavali & P. Narasimha Reddy	J. Electromagnetics, Taylor and Francis, Vol. 41, 2020, DOI: 10.1080/02726343.2020.1780375, [SCI indexed; IF:0.6].	2020		0	SLIET, Longowal
Modelling and simulation of vertical fin style aluminium heat sink for controlled thermal compensation in absorber loaded antenna array, Journal of Communication Technology and Electronics	Surekha Rani, Anupma Marwaha, Sanjay Marwaha	Springer, Vol. 11, 2020. [SCI indexed; IF:0.5].	2020		1	SLIET, Longowal
Nanocomposite graphene based tunable absorber for combating electromagnetic pollution	Surekha Rani, Anupma Marwaha, Sanjay Marwaha	Current Nanoscience, Bentham Science Publisher, Vol. 16(1), pp. 1-8, 2020	2020		1	SLIET, Longowal
Graphene based Multiband Frequency Antipodal Vivaldi Nanoantenna for UWB Applications	Gaurav Bansal, A. Marwaha, Amanpreet Singh, Rajni Bala,S.Marwaha	Journal of Computational Electronics, February 2020, pp. 1-10	2020		1	SLIET, Longowal
Synthesis of Palladium nanoparticles in SiO_2 matrix	Kanika Aggarwal	International journal of Advanced science and technology	2019		00	SLIET, Longowal
Hydrogen sensing properties of Palladium Thin films and Nanoparticles	Kanika Aggarwal	AIP Conference Proceedings	May, 2020		00	SLIET, Longowal
Two-particle azimuthal correlations as a probe of collective behaviour in deep inelastic ep scattering at HERA	Prabhdeep Kaur (as a member of ZEUS collaboration)	JOURNAL OF HIGH ENERGY PHYSICS	Dec, 2019		00	SLIET, Longowal
Study of proton parton distribution functions at high x using ZEUS data	Prabhdeep Kaur (as a member of ZEUS collaboration)	Physical review D	March, 2020		00	SLIET, Longowal

On the potential for superconductivity in ZrX (X = S and Te): a first-principles study	Gupta, Y., Sinha, M.M., Verma, S.S.	Physica C: Superconductivity and its Applications	2020		0	SLIET, Longowal
Magneto-plasmonic Co@M (M = Au/Ag/Au-Ag) core-shell nanoparticles for biological imaging and therapeutics	Bhatia, P., Verma, S.S., Sinha, M.M.	Journal of Quantitative Spectroscopy and Radiative Transfer	2020		0	SLIET, Longowal
Lattice dynamics of novel Heusler alloys MnY2Z (Z=Al and Si)	Gupta, Y., Sinha, M.M., Verma, S.S.	Physica B: Condensed Matter	2020		0	SLIET, Longowal
Size-dependent optical response of complex CoFe@Ag & CoFe@Au core-shell nanospheres	Bhatia, P., Verma, S.S., Sinha, M.M.	Chemical Physics Letters	2020		0	SLIET, Longowal
Enhanced photocurrent in thin-film GaAs solar cells with embedded Al nanoparticles	Singh, G., Sekhon, J.S., Verma, S.S.	Energy Sources, Part A: Recovery, Utilization and Environmental Effects	2020		1	SLIET, Longowal
Tunable optical response of Fe-Ag nanoparticles in core-Shell nanostructures	Bhatia, P., Verma, S.S., Sinha, M.M.	Journal of Electromagnetic Waves and Applications	2020		0	SLIET, Longowal
Theoretical study of structural, electronic and lattice dynamical properties of novel AlNiP half-Heusler alloy	Gupta, Y., Sinha, M.M., Verma, S.S.	Philosophical Magazine	2020		0	SLIET, Longowal
Tunable plasmonic properties of elongated bimetallic alloys nanoparticles towards deep UV-NIR absorbance and sensing	Bhatia, P., Verma, S.S., Sinha, M.M.	Journal of Quantitative Spectroscopy and Radiative Transfer	2020		0	SLIET, Longowal
Design and analysis of thin film GaAs solar cells using silver nanoparticle plasmons	Singh, G., Verma, S.S.	Photonics and Nanostructures - Fundamentals and Applications	2019		1	SLIET, Longowal
Size dependent plasmonic properties of Ga@Ag & Cs@Ag liquid–metal nanospheres	Bhardwaj, A., Verma, S.S.	Optics Communications	2019		0	SLIET, Longowal
Optical properties simulation of magneto-plasmonic alloys nanostructures	Bhatia, P., Verma, S.S., Sinha, M.M.	Plasmonics	2019		0	SLIET, Longowal
A First Principle Study of Structural,	Gupta, Y., Sinha, M.M., Verma, S.S.	Physics Status Solidi b	2019		0	SLIET, Longowal

Electronic and Vibrational Properties of LuPdBi Half Heusler Alloy						
Size-Dependent RIS and FOM of Ag-Fe and Au-Fe Bimetallic Alloys in Triangular Prism: a DDA Study	Bhatia, P., Verma, S.S., Sinha, M.M.	Photonic Sensors	2019		0	SLIET, Longowal
Tuning the Optical Properties of Fe-Au Core-Shell Nanoparticles with Spherical and Spheroidal Nanostructures	Bhatia, P., Verma, S.S., Sinha, M.M.	Physics Letters A	2019		5	SLIET, Longowal
Plasmon enhanced light trapping in thin film GaAs solar cells by Al nanoparticle array	G Singh, SS Verma	Physics Letters A	2019		9	SLIET, Longowal
Synthesis and Characterization of Some Useful Thermoelectric Materials	J SINGH, SS VERMA	Asian Journal of Chemistry	2019		3	SLIET, Longowal
Novel Green Synthesis and Characterization of the Antioxidant Activity of Silver Nanoparticles Prepared from Nepeta leucophylla Root Extract,	Jagdeep Singh & Amarjit Singh Dhaliwal	Analytical Letters (IF= 1.260)	2019		0	SLIET, Longowal
Plasmon-induced photocatalytic degradation of methylene blue dye using biosynthesized silver nanoparticles as photocatalyst,	Jagdeep Singh & A. S. Dhaliwal	Environmental Technology (I.F = 2.213)	2020		0	SLIET, Longowal
Modified atomic number dependence of total bremsstrahlung spectra in compounds,	Sjit Sharma, T Singh, D Singh, A Singh, A S Dhaliwal,	Turkish Journal of Physics(IF=0.34)	2019		0	SLIET, Longowal
Photon Interaction Parameters Investigations for Some ZnO–Al2O3–Fe2O3–P2O5 Glasses at 59.4 keV Incident Photon Energy.	R Singh, D Singh, A Singh, AS Dhaliwal	Glass Physics and Chemistry (IF=0.630)	2019		0	SLIET, Longowal
Structural investigation of Nd-zirconolite irradiated with He+ ions.	M. Gupta, P. K. Kulriya, R. Kumar & S. S. Ghumman,	Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms (IF= 1.270)	2020		0	SLIET, Longowal

Probing swift heavy ion irradiation damage in Nd-doped zirconolite.	Merry Gupta P.K. Kulriya, R.C.Meena, S.Neumeier & S.S.Ghumman,	Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms (IF= 1.270)	2019		0	SLIET, Longowal
Phase analysis and reduction behaviour of Ce dopant in zirconolite.	Rajveer Kaur, M. Gupta,P. K. Kulriya and S. S. Ghumman,	Journal of Radioanalytical and Nuclear Chemistry (IF= 1.240)	2019		0	SLIET, Longowal

3.4.7 Faculty participation in Seminars/Conferences and Symposia during the year :

No. of Faculty	International level	National level	State level	Local level
Attended Seminars/ Workshops	7	46	7	12
Presented papers	19	12	5	0
Resource Persons	2	15	7	0

3.5 Consultancy

3.5.1 Revenue generated from Consultancy during the year

Name of the Consultant(s) department	Name of Consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
Dr. H.K. Chopra, Prof. Chemistry Department and Dr. P.S. Panesar, Prof. FOOD EGG. & TECH. Department	Production of Novel Rapamycin Analogs	Pharmaffiliates Analytics & Synthetics (P) Ltd., Plot No. 225, Industrial Area, Phase-2, Panchkula (Haryana)	Rs. 1, 29, 594/-
Dr. D.C. Saxena, Prof. FOOD EGG. & TECH. Department	Routine testing of samples on Rapid Visco Analyser Installed in the Rheology Lab of Institute	Research Lab, Accuprec Research Labs Pvt. Ltd. Ahemdabad	Rs. 500/- per sample + GST = Rs. 2, 360/-
Dr. H.R. Ghatak, Prof. Chemical Engineering Department	Technical Guidance for getting valuable products from turmeric	Sh. Arun Kumar Kundra, retired Principal from Haryana Sirsa for setting up the unit for extraction of turmeric oil, curcumin and colouring matter from turmeric	Rs. 23, 600/-
Dr. H.K. Chopra, Prof. Chemistry Department and Dr. P.S. Panesar, Prof. FOOD EGG. & TECH. Department	Biosynthesis of Ivermectin and its Analogues	Pharmaffiliates Analytics & Synthetics (P) Ltd., Plot No. 225, Industrial Area, Phase-2, Panchkula (Haryana)	Partial funding of Rs. 50, 000/- received
Dr. Surinder Singh, Prof. ELECTRONICS & COMM. ENGGDepartment	Development of Optimal UV Sanitization Device to Disinfect the Virus and Bacteria for various applications	Gigabyte Networks Pvt. Ltd., Ludhiana	Rs. 2, 32, 000/-

3.5.2 Revenue generated from Corporate Training by the institution during the year

Name of the Consultant (s) &	Title of the Programme	Agency seeking training	Revenue generated (amount in rupees)	Number of trainees

Department				
--	--	--	--	--

3.6.1 Number of extension and outreach programmes conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the Activities	Organising unit/ agency/ collaborating agency	Number of teachers coordinated in such activities	Number of students participated in such activities
Motivational Sessions for Children towards Education (8 no. of sessions)	NSS, SLIET in collaboration with Community at Bhammabaddi Village, District Sangrur	01 01	20 NSS volunteers + 40 no. of village children
Cleanliness Drive at Residential Area of SLIET (Swachhta Abhiyaan) on 2.10.2019	NSS, SLIET alongwith other Departments of SLIET	02	60 NSS Volunteers
Shramdaan (One day Volunteer Services camps) at Pingalwara, Sangrur – 02 nos.(dated 21.09.2019 and 19.10.2019)	NSS, SLIET	01	40 NSS Volunteers
Observance of armed forces flag day on 7th December,2019	NCC, SLIET/District Defense services welfare officer, Sangrur	01	103(All NCC cadets)
Rashtriya Ekta Diwas on 31st,October,2019	NCC&NSS, SLIET/Deptt. of higher Education, MHRD,GOI	02	NCC and NSS cadets
Communal Harmony Campaign Week 19th to 25th November, 2019,	NCC SLIET/National Foundation for Communal Harmony, MHA,GOI	01	103(All NCC Cadets)
Flag Day on25th November, 2019,	NCC SLIET/ National foundation for communal Harmony, MHA,GOI	01	103(All NCC Cadets)
World Food Day (WFD)	SLIET, Longowal	05	150
Workshop on HACCP from 19 – 20, October 2019	International Institute for Technical Teachers (IITT), Dehradun and Regional Food Research and Analysis Centre (RFRAC), Lucknow	02	30
Industrial Educational Tour	Diesel Manufacturing workshop (DMW), Govt. of India, Patiala Punjab	2	39

Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the Activity	Award/recognition	Awarding bodies	No. of Students benefited
STARTUP INDIA challenge2019 SBI and Synd Innovate Hackthon 2019	6th consolation prize in Synd Innovate	Syndicate Bank	**04**
	Rs, 10000/- cash prize		
Efficyle 2018	Winner of Gradient Simulator Award (Advances category)	Society of Automotive Engineers (SAE)- Northern India Section	**13**
	Utility Demonstration Award (Advances		

	category) & cash award		
Baja SAE India2019	Pride of Punjab	Baja SAE India	**21**
7th Go Kart Design Challenge Season6-2019-2020	Design Evolution - 1st	ISNEE(Indian Society of New Era Engineers)	**24**
	Disassemble test- 2nd		
	Accetation-4th		
	Skid-Pad-3rd		
	Endurance - 4th		
	Overall- 3rd Team		
	Best Captain Award		
SSB Course conducted at Kamptee during 16Sept to 25th September 2019	Overall second senior among all the selected NCC cadets of India	OTA(Officers Training Academy) Kamptee	01

3.6.3 Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/ agency/ collaborating agency	Name of the activity	Number of teachers **coordinated** in such activities	Number of students participated in such activities
Swachhta sewa Campaign from 11.09.19 to 02.10.2019	Unnat Bharat Abhiyan	Phasing out of single use plastic	02	405 approx.
Swachhta Hi Sewa-2019 from 11.09.19 to 27.10.2019	Swacjh Bharat Mission	Orgnized the "Swachh SLIET Abhiyan" on 2nd Oct-2019	Chief Warden, All Wardens & Caretakers	982 approx.
Ek Bharat Shreshtha Bharat	EBSB Team SLIET	Plogging Event (picking up the litter while running) on 17.01.2020	02	172 approx.
Half Marathan - 2020	District Administration, Sangrur	5 K.M. Fun Run on 29.02.2020	Chief Warden, All Wardens & Caretakers	357 approx.
"Village adoption scheme "under social responsibility scheme	NCC &NSS SLIET, Longowal/ Unnat Bharat Abhiyan scheme, MHRD,GOI	Promotion of digital initiatives	02	NCC and NSS cadets
Plastic free campaign (Swachhata hi Seva 2019) from 11th sep to 27th october,2019	NCC &NSS SLIET, Longowal/MHRD,GOI	Plastic waste awareness generation	02	NCC and NSS cadets
Swachh Sarvekhan Gramin 2019	SLIET, Longowal/DC Sangrur	Downloading SSG2019 App through Google play store	23	All students
Computational skills	Softpro India Computer Technologies (P) Ltd, Lucknow	Two days workshop for UG SLIET	2	187

Enhancement workshop		students on “Python with IOT” for improving their coding skills		
Entrepreneurship	EDII and STEP	Entrepreneurship Awareness camp	01	70
EMD	AICTE	Entrepreneurship Awareness camp	01	100
	SLIET	Webinar on EDP Sunny Karawala Founder and CEO of SPACE TECHNOLOGY AND AERONAUTICAL ROCKETARY STAR LABS INDIA	01	30
	SLIET	Rural Development Workshop	02	80
	SLIET	Workshop on Happiness and Wellbeing	02	150
	SLIET	Celebration of Constitution day	03	160
	SLIET	Workshop on Opportunities and Challenges in Canada	03	150

3.7 Collaborations

3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of Activity	Participant	Source of financial support	Duration
Exchange visit under Research Project	Dr. Sukhbir Singh, SRF, ASEAN-India Collaborated R&D Project	Department of Science and Technology, New Delhi	01 Month
Research Fellowship	Mr. Dai Van Pham, Institute of Material Science, Vietnam Academy of Science and Technology, Hanoi, Vietnam	FICCI, New Delhi	06 Months
STTP on Material Characterization & Analytical Techniques for Research Applications in Collaboration with Department of Physics and Mechanical Engineering, SLIET, Longowal	55 Faculty Members	TEQIP- III	05 days
Short Term Course on DFT & Its Applications using Gaussian Software in Collaboration with NIT, Jaipur	35 Faculty Members	TEQIP- III	05 days
Visiting Professor at AIT Bangkok (Secondment of Indian Faculty in foreign Universities by MHRD)	01	MHRD, GOI	05 Months

3.7.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration **(From)**	Duration **(to)**	Participant
Internship/Training Industrial of SLEIT	Internship/Training Program	VARDHAN CONSULTING ENGINEERS	May 2020	July 2020	30

Students					
Internship/Training Industrial of SLEIT Students	Internship/Training Program	CETPA INFOTECH *PVT LTD*	May 2020	July 2020	03
Internship/Training Industrial of SLEIT Students	Internship/Training Program	UDEMY	May 2020	July 2020	55
Internship/Training Industrial of SLEIT Students	Internship/Training Program	INTERNSHALA	May 2020	July 2020	10
Internship/Training Industrial of SLEIT Students	Internship/Training Program	HEBEON TECHNOLOGIES PVT. LTD.	May 2020	July 2020	07
Internship/Training Industrial of SLEIT Students	Internship/Training Program	TCS ION	May 2020	July 2020	05
Internship/Training Industrial of SLEIT Students	Internship/Training Program	AICTE	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	INMOVIDU TECHNOLOGIES PVT. LTD.	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	E&ICT ACADEMY IIT KANPUR	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	SOLITAIRE INFOSYS PRIVATE LIMITED	May 2020	July 2020	06
Internship/Training Industrial of SLEIT Students	Internship/Training Program	TATA IRON AND STEEL COMPANY LIMITED (*TISCO*)	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	INDIAN RAILWAYS	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	NFL NANGAL	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	HINDALCO, RENUKOOT	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	INDIAN INSTITUTE OF CHEMICAL TECHNOLOGY, HYDERABAD	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	*BUREAU OF ENERGY EFFICIENCY*	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	*CETPA INFOTECH*	May 2020	July 2020	03
Internship/Training Industrial of SLEIT Students	Internship/Training Program	NORTH BIHAR POWER DISTRIBUTION COMPANY LIMITED	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	*SOFTPRO* GROUP	May 2020	July 2020	03
Internship/Training	Internship/Training	SSDN TECHNOLOGIES	May 2020	July 2020	01

Industrial of SLEIT Students	Program	PVT. LTD.			
Internship/Training Industrial of SLEIT Students	Internship/Training Program	COURSERA	May 2020	July 2020	15
Internship/Training Industrial of SLEIT Students	Internship/Training Program	ALIGARH MUSLIM UNIVERSITY	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	GULATI CHEMICALS	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	TIRHUT DUGDH UTPADAK SEHKARI SANGH LIMITED,MUZAFFARPUR	May 2020	July 2020	04
Internship/Training Industrial of SLEIT Students	Internship/Training Program	SUDHA DAIRY, BARAUNI	May 2020	July 2020	02
Internship/Training Industrial of SLEIT Students	Internship/Training Program	SMC FOOD LIMITED	May 2020	July 2020	02
Internship/Training Industrial of SLEIT Students	Internship/Training Program	QOS TECHNOLOGY	May 2020	July 2020	03
Internship/Training Industrial of SLEIT Students	Internship/Training Program	ITC KOLKATA	May 2020	July 2020	01
Internship/Training Industrial of SLEIT Students	Internship/Training Program	BONN NUTRIENTS PRIVATE LIMITED	May 2020	July 2020	02
Internship/Training Industrial of SLEIT Students	Internship/Training Program	MONDELEZ INTERNATIONAL CADBURY, BADDI	May 2020	July 2020	02
Internship/Training Industrial of SLEIT Students	Internship/Training Program	LUDHIANA BEVERAGES PVT.LTD. (COCA COLA)	May 2020	July 2020	05
Internship/Training Industrial of SLEIT Students	Internship/Training Program	PEPSICO INDIA HOLDINGS PRIVATE LIMITED	May 2020	July 2020	03
Research Project	Design and Development of Novel Optoelectronic Device for High Speed Reconfigurable Optical Access Networks	Institute of Material Science, Vietnam Academy of Science and Technology, Hanoi, Vietnam	01/02/2018	21/01/2021	3
Research Project	Optical Metrology of Ultra Short Pulses for Design of Flexible MIMO based Next Generation Optical Communication Networks	Institute of Applied Physics, Russian Academy of Sciences, Novgorod, Russia	11/03/2019	10/03/2021	2
Research Fellowship	Design and	Institute of Material	01/06/2019	30/11/2019	3

	Photonics Crystal Fiber Biosensor for Biochemical and Chemical Applications	Science, Vietnam Academy of Science and Technology, Hanoi, Vietnam			
Industry Sponsored Programme of Ph.D.	Joint Research Programme	ECFL, Ludhiana	February-2020	February-2023	1

3.7.3 MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose and Activities	Number of students/teachers participated under MoUs
Indian Institute of Food Processing Technology, Thanjavur (IIFPT)	13/01/2020	for internship, on-the-job training, project work, sharing of research	02
Federal Research Center, Institute of Applied Physics of the Russian Academy of Sciences (IAP RAS), 46 Ulyanov Street, Nizhny Novgorod, Russia	06/07/2019	Internship, on-the-job training, project work, sharing of research facilities, workshop, conference, etc.	02
Atal Bihari Vajpayee Govt. Institute of Engineering and Technology, Pragatinagar, Shimla	22/08/2019	Exchange of scientific and technical information, visits by and exchange of students for the purpose of study and research, undertaking collaborative research activities, jointly organize events such as seminars, workshops, conferences, and training etc.	
Guru Nanak Dev University, Amritsar (Punjab)	26/09/2019	GNDU, Amritsar can offer summer/ winter internship for the students of SLIET, Longowal, start teaching and R&C collaboration in the area of Food Technology/ Processing, UG and PG projects thesis/ dissertation mutual consultation, etc.	
Maharaja Ranjit Singh Punjab Technical University (MRSPTU), Bathinda (Punjab)	26/09/2019	MRSPTU, Bathinda can offer summer/ winter internship for the students of SLIET, Longowal, UG students of MRSPTU, Bathinda can also opt for lab experiments and internship, start teaching and R&C collaboration, etc.	
Eastman Cast & Forge Limited, Ludhiana (Punjab)		Collaboration in research & development in the areas of low-cost automation, electroplating of hand tools, sponsorship to SLIET, Longowal students, registration of ECFL industrial staff for Ph.D. Degree at SLIET, Longowal, as industry sponsored candidate, exchange of research material, joint publication of research papers in scientific journals of repute and conference presentations, ECFL will offer summer/ winter training to ICD/UG & PG students of institute	03
Indian Institute of Food Processing Technology (IIFPT), Thanjavur	10/01/2020	Joint consultancy for industries, students research projects/in-plant trainings, Coordination of joint research projects and lectures, new product development and incubation services with research institutes and industries, exchange of documentation and research materials in field of mutual interests	

Meritorious School Ghabdan (Sangrur)	06/02/2020	Faculty exchange, Student exchange, organizing joint Conferences, Seminars, Workshops, STs, Use of each other's infrastructure facilities	
Collaboration between University of West Attica (UNIWA), Athens Greece	13/02/2020	ERASMUS+ Framework	
Gigabyte Networks Pvt. Ltd., Rakh Bagh., Ludhiana (Punjab)	03/07/2020	Development of UV/Light Technology based Products, visit and personnel exchange, exchange of Scientific and Technical information, co-organization of STP/FDP, Seminars, Symposia and Conferences	01
Universiti Kebangsaan Malaysia (The National University of Malaysia)	14/07/2020	Endeavour to strengthen, promote and develop academic, research, institutional development, and capacity building skills on the basis of equality and mutual benefits.	
Meritorous School, Sangrur	14.09.2019		
Ministry of Education (earlier known as MHRD), New Delhi	15.05.2020		

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
Rs. 600.00 Lakh	Rs. 506.60 Lakh

4.1.2 Details of augmentation in infrastructure facilities during the year

Facilities	Existing	Newly added
Campus area	447 Acres	--
Classrooms	66 Nos.	--
Laboratories	132	--
Seminar Halls	6	--
Classrooms with LCD facilities	7	10
Classrooms with Wi-Fi/ LAN	7	26
Seminar halls with ICT facilities	--	6
Video Centre	--	2
No. of important equipment purchased (≥ 1-0 lakh) during the current year.	506	59
Value of the equipment purchased during the year (Rs. in Lakhs)	246815512	56168758
Others		
Guest House	1	-
Health Centre	1	-
Shopping Complex	1	-
Restaurant	1	-
Shops Alt-2	3	-
Shops near Transit Accommodation	1	-
Transit Accommodation	1	-
Bank and post office	1	-
Administrative Block	1	-
Auditorium Building	1	-
Estate Office	1	-
Check post	1	-
Bus Shelters	2	-
Coffee Booth	2	-
Faculty Club	1	-

Swimming Pool	1	-
LPG Godown	1	-
Community Centre	1	-
Electrical Sub Station	2	-
Over head Tank	2	-
Sports Complex	1	-
Stadium	1	-
Student Activity Centre	1	-
Hostels	13	-
K.V School	1	-
Houses	505	-
Director Residence	1	-
Workshops	10	-

4.2 Library as a Learning Resource

4.2.1 Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
Alice for Window	Partially	6.00	2002

4.2.2 Library Services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	98189	32931711	4549	2412576	102738	35344287
Reference Books	5291	6012700	100	280508	5391	6293208
e-Books			337	2043321.92	337	2043321.92
Journals	8812	5156085.00	---	---	8812	5156085.00
e-Journals	4930	92.00 lac	5682	97.00 lac	10612	189.00 lac
Digital Database	03	Sponsored	03	Sponsored	06	Sponsored
CD & Video	3297	209400	150		3527	209400
Library automation						
Weeding (Hard & Soft)	2608	451248	195	41570	2803	492818
Others (specify) (M.Tech. & Ph.D. thesis)	1264	---	103	---	1367	---

4.2.3 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the teacher	Name of the module	Platform on which module is developed	Date of launching e - content
--	--	--	--

4.3 IT Infrastructure

4.3.1 Technology Upgradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Available band width (MGBPS)	Others
Existing	2744	20	1	24	02	46	11	1	----
Added	171	0	0	0	0	0	0	0	0
Total	2915	20	1	24	02	46	11	1	0

4.3.2 Bandwidth available of internet connection in the Institution (Leased line)

1 Gbps connectivity from NKN

4.3.3 Facility for e-content

Name of the e-content development facility*	Provide the link of the videos and media centre and recording facility

NEPTEL Video Lectures	10.1.0.102 I Local Guru available on intranet

4.4 Maintenance of Campus Infrastructure

4.4.1 Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
2460 Lakh	1385.24 Lakh	2435 Lakh	1370.79 Lakh

4.4.2 Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

Consequent upon the decision, taken by Govt. of India in 1985, to tender a valuable, yet humble tribute to the everlasting memory of the revered saint Late Sh. Harchand Singh Ji, Sant Longowal Institute of Engineering and Technology took its shape. The institute was established by Ministry of Human Resource and Development (MHRD), Govt. of India in the year 1989 and was formally inaugurated on 20th December 1991.

There are 14 Hostels: 10 Boys Hostels, 03 Girl Hostels and 01 PG Hostel (Girls), with an upgraded facilities like Sports grounds, Wi-Fi, Bed, Mattress, Table, Chair, TV room, Carom Board, Volleyball Ground etc.. The academic buildings are Science Block, Mechanical Block, Workshops, Chemical & food Block, Computer Block, Electronic Block Old, Electronic Block New, EDP Block, Library Buildings, Student Activities Centre.

Other buildings in the campus are Administrative Block, Auditorium Building, Guest House, Transit Accommodation, Director Residence, Estate Office I/c ESS-I & ESS-II, Faculty Club, Swimming Pool, Shopping Complex, Restaurant, Post Office, Bank (Central Bank of India), three shops in-front of girls hostels, three Shops near Boys Hostel no. 07, stadium with 400 meter track, 02 pump Houses and sewerage pump house (01 no.) with Oxidation pounds and pump house (01 no.) with lifting facility of treated waste water to irrigate the plants of institute in the forest areas, KV School Building with well equipped furniture and sport facilities, 02 no. Over head water tanks, 02 nos. Bus Stands, Security Check Posts at Duggan main gate & Longowal Main Gate, Main Boundary Wall Campus more than 7 feet height and there is excellent road networking inside the campus.

The Institute also has 505 Residential quarters for the employees of all categories: Type-I = 72, Type–II = 90, Type –III = 219, Type – IV = 84 & Type –V = 40.

Maintenance of various facilities and Institute area (447 Acre approxi.) under taken through the various work heads at SLIET, Longowal are as follows:-

1. Annual Repair & Maintenance of Hostel & Academic Buildings (Civil & Internal Public Health).
2. Annual Repair & Maintenance of Residential & Other Buildings (Civil & Internal Public Health).
3. Annual Repair & Maintenance of External Water Supply and Sewerage System.
4. Supply of Hardware materials as per list required for carrying-out Annual Repair and Maintenance of buildings.
5. Supply of Sanitary materials as per list required for carrying out Annual Repair and Maintenance of buildings.
6. ARM & Development of Horticulture work.
7. Providing sanitation Services at.
8. Requirement of outsourcing workers.
9. ARM of Electrical Work.
10. ARM of Roads inside Campus.

The security in campus is ensured through the outsourcing security personals / manpower.

http://sliet.ac.in/wp-content/uploads/2019/12/IQAR-Report-2019-1.pdf

CRITERION V - STUDENT SUPPORT AND PROGRESSION

5.1 Student Support			
5.1.1 Scholarships and Financial Support			
	Name /Title of the scheme	Number of students	Amount in Rupees
Financial support from institution	Poor Student aid fund	ICD-15	Rs.38100/-
Financial support from institution	Poor Student aid fund	UG-08	Rs.89150/-
Total			Rs.1,27,250/-
Financial support from other sources			
a) National	National Scholar ship portal & State Scholarship portal	505	As per the norms of funding agencies
b) International	Nil	Nil	Nil

5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
Online Coding Competition "Code Cracker 19"	Aug. 28th -29th, 2019	91	Hackerrank.com (SSDC)
MOCK TEST (Companies Placement)	Sept. 4th, 2019	80	SSDC
14 Days Workshop on "C Programming"	Sept. 9th -22th, 2019	188	SSDC
Online Coding Competition "MindStormer S1"	Sept. 14th -15th, 2019	89	Hackerrank.com (SSDC)
Online Coding Competition "Code Camp 3"	Oct. 13th 2019	66	Hackerrank.com (SSDC)
Online Coding Competition "MindStormer-D1 SSDC"	Dec. 15th-16th, 2019	44	Hackerrank.com (SSDC)
Online Coding Competition "MindStormer-Feb20"	Feb. 24th -25th, 2020	52	Hackerrank.com (SSDC)
Online Coding Competition "MindStormer-Apr-20"	April 4th – 5th, 2020	106	Hackerrank.com (SSDC)
1-day Workshop on "Cybersecurity & Ethical Hacking"	Jan. 28th 2020	170	A2IT Pvt. Ltd, Chandigarh (SSDC)
14 Days Workshop on "Python Programming"	Feb. 9-22, 2020	94	cppsecrets.com (SSDC)
Yoga in Faculty Club	Regular basis till 9th March, 2020	10	Health & Meditation club
Meditation	3 days in a week till 9th March and after that online	10	Health & Meditation club
International Yoga day Celebration	22, June, 2020 at their own home	50	Health & Meditation club
Pilot Program on "Soft Skills Proficiency for Employability of Engineering Graduates"	Aug. 21- Sept.21, 2019	60 student participated	Communication Skills And Personality Development Club
Workshop on Etiquettes And communication Skill(03 No)	11th -13th Feb.,2020	345 enrolled	C.S.P.D C.
Workshop on "Basic English Speaking Skills"	18th -19th Feb.,2020	125 enrolled	C.S.P.D C.
Workshop on " Enhancing English Speaking Skills"	18th -19th Feb.,2020	110 enrolled	C.S.P.D C.
Work shop on Happiness and Wellbeing	5th -7th Aug.2019	150 enrolled	Counselling and Soft Skill Club
Workshop on Opportunities and Challenge in Canada	22.08.2019	150 enrolled	Counselling and Soft Skill Club
Student Induction program under Universal Human Value	04-10 January, 2020	55	Sponsoed by AICTE

Student Induction on Universal Human Values	15-17 November 2019	53	Sponsored by AICTE
Nano-electronic & VLSI: Devices, Circuits and Systems	04-08 November 2019	40	Sponsored by AICTE
3D printing & Design	09-13 December, 2019	49	Under ATAL-AICTE
Workshop on "Machine Learning"	16th April, 2020	200	Expert talks by CETPA Infotech Pvt. Ltd.
Training program on PLC, drive and industrial automation	02-06 March, 2020	30	Under TEQIP-III
Material Characterization & Analytical Techniques for Research Applications (MCATRA-2019)	01-05 July, 2019	50	Under TEQIP-III
STTP on Material Characterization & Analytical Techniques for Research applications	01-05 July, 2019	16	Under TEQIP-III
STC on DFT & its applications using Gaussian software	24 -28 February, 2020	8	Under TEQIP-III
Online STC on Analytical Techniques in the realm of Molecules & Materials	26-30 June 2020	51	Under TEQIP-III
STTP on Material Characterization & Analytical Techniques for Research applications	01-05 July, 2019	39	Under TEQIP-III
STC on DFT & its applications using Gaussian software	24-28 February, 2020	27	Under TEQIP-III
Online STC on Analytical Techniques in the realm of Molecules & Materials	26-30 June 2020	192	Under TEQIP-III
A Motivational and Torchbearer Workshop on 'Entrepreneurship – Dream to be an Industrialist'	04th September 2019	80	Under TEQIP-III
Motivational workshop on 'Entrepreneurship'	29th August 2019	90	Sponsored by SLIET
Workshop on C Programming Language	09-22 February 2020	188	Sponsored by SLIET
Nano-electronic & VLSI: Devices, Circuits and Systems	04-08 November 2019	40	Under TEQIP-III
Low Frequency (LF) and High Frequency Design (HF) Using TaraNG:19.0"	05-06 October 2019	40	Under TEQIP-III
SWAYAM Workshop for Students to mark celebration of Engineers Day	15th September 2019	192	Under TEQIP-III
Industrial Visit of Students at Diesel Manufacturing workshop (DMW), Govt. of India, Patiala Punjab	18th December 2019	38	Under TEQIP-III
Workshop on IIT with python at SLIET Longowal	08-09 February 2020	187	Softpro India Computer Technologies Pvt. Ltd. in association with Techfest'20
Productivity Enhancement Program (PEP)	26-31 August 2019	25	Under TEQIP-III In collaboration with VVKI Banguluru
Workshop on HACCP	19-20, October 2019.	30	Collaboration with IITT, Dehradun and RFRAC, Lucknow
World Food Day (WFD) celebration Processed Products manufacturing at pilot plant scale by the students of departmental under self-help group, Quiz competition, Poster Presentation, Product Development, Food craft, Cross word competition etc	07 days 14-20 October 2019	250	Society of Food Technologists AFST(I) Longowal Chapter

Workshop on Entrepreneurship	02-03 August 2019	80	Sponsored by SLIET, Longowal
Workshop on Opportunities in Food Processing Sector	7th November 2019	60	Sponsored by SLIET, Longowal
Workshop on Opportunities in Chemical Engineering Sector	24th February 2020	40	Sponsored by SLIET, Longowal
Start up Kshetra (Case Study Competition)	02 Days	30	Under TEQIP-III
Webinar on EDP	01-04 May 2020	30	Sponsored by SLIET, Longowal
Webinar on EDP	10 May 2020	28	Sponsored by SLIET, Longowal
Webinar on EDP Sunny Karawala Founder and CEO of Space Technology and Aeronautical Rocketary Star Labs India	17th May 2020	30	Sponsored by SLIET, Longowal
Entrepreneurship Awareness Camp	13-15 February 2020	70	Sponsored by SLIET, Longowal
Entrepreneurship Awareness Camp	26th September 2019	100	Sponsored by SLIET, Longowal
Rural Development Workshop	11th October 2019	100	Sponsored by SLIET, Longowal
Celebration of Constitution Day	26th November 2019	160	Sponsored by SLIET, Longowal
Industrial Quality Tools	16-17 October, 2019	60	Under TEQIP-III
Preparation of Business Plan and Detailed Project Report	02-03 March, 2020	40	Sponsored by SLIET, Longowal
Industrial Motivational Campaign for youth	19-20 February, 2020	100	Under TEQIP-III
An Educational Trip to IISER Mohali for M.Sc. (Physics) Students	18th September 2019	20	Sponsored by IISER Mohali
AICTE Training and Learning (ATAL) Academy Sponsored Workshop on "Internet of Things"	14-18 October, 2019	46	Under TEQIP-III

5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students who have passed in the competitive exam	Number of students placed
2019-2020	TEQIP-III	266	-	39	Not available
2019-2020	TEQIP-III	-	60	-	Not available
	Pilot Programme on Soft skills Proficiency for Employability of Engineering Graduates	129	-	-	-

5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

The Institute has constituted Anti-Ragging Committees/squad for different academic blocks, shopping complex, Hostels, Student Activity Centre and other areas of the Institute. The Institute has also constituted Internal Complaints Committee,

to ensure congenial working environment which is free of sexual harassment or gender based discrimination for all women employees and students.		
Total grievances received	No. of grievances redressed	Average number of days for grievance redressal
0	0	90 days as per provision contained in the Act
No student ragging case was reported during academic year 2019-2020	0	0

5.2 Student Progression					
5.2.1 Details of campus placement during the year					
On Campus			**Off Campus**		
Name of Organization Visited	Number of Students Participated	Number of Students Placed	Name of Organization Visited	Number of Students Participated	Number of Students Placed
INFOSYS LIMITED	145	25	MAHINDRA & MAHINDRA LTD.	03	02
ISGEC HEAVY ENGINEERING LTD, YAMUNA NAGAR	40	03	TATA CONSULTANCY SERVICES	52	20
CAPGEMINI TECHNOLOGY SERVICES INDIA LIMITED	110	22	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PVT LTD.	28	06
HINDUSTAN UNILEVER LIMITED, GURUGRAM (HUL)	84	01	SCOOBEE PET FOODS PVT. LTD.	01	01
DEBUT INFOTECH PVT. LTD.	51	02	OMNINOS SOLUTIONS, MOHALI	01	01
CGI INFORMATION SYSTEMS & MANAGEMENT CONSULTANT PVT.LTD.	65	03	MAHARANI INNOVATIVE PAINTS PVT. LTD	02	02
ASHRIYA INFOTECH PVT. LIMITED, MOHALI	42	05	QUIPH MEDIA PVT. LTD.	01	01
GODREJ & BOYCE MFG. CO. LTD., MUMBAI	62	02	A.P ORGANICS LIMITED (RICELA GROUP)	15	07
SOFSTER, MOHALI	25	01			
RALSON INDIA LIMITED	40	03			
VARDHMAN TEXTILES LIMITED	78	06			
LIDO LEARNING (QUALITY TUTORIALS PVT. LTD.)	60	03			
QOS TECHNOLOGY	15	03			
WELSPUN CORP. LIMITED	28	04			
NESTLE INDIA LIMITED, MOGA	50				

HERO CYCLES LIMITED	06				
CLAAS INDIA LIMITED	03				
KANDHARI BEVERAGES PVT.LTD. (COCA COLA)	15				
SAGAR MACHINE TOOLS	01				
BHARAT INDUSTRIES / BI RAIL	03				
DAWN MOTOR LUDHIANA	06				

5.2.2 Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2020	01	B.E.	Computer Science & Engg.	Chandigarh University, Gharuan, Mohali	Master of Engineering in Computer Science Engineering with specialisation in Artificial Intelligence and Machine Learning
2020	01	B.E.	Computer Science & Engg.	Federation University Melbourne lonsdale campus	Masters of technology
2020	02	B.E.	Computer Science & Engg.	IIT KHARAGPUR	M.B.A.
2020	01	B.E.	Computer Science & Engg.	NIT, Durgapur	COMPUTER SCIENCE & ENGINEERING
2020	01	B.E.	Computer Science & Engg.	NITTTR, Chandigarh	ME in Computer Science and Engineering
2020	01	B.E.	Computer Science & Engg.	Punjabi uni patiala	Mtech
2020	02	B.E.	Computer Science & Engg.	SLIET, Longowal	Pgcse
2020	01	B.E.	Chemical Technology	IIT Bombay	Mtech
2020	01	B.E.	Chemical Technology	IITbhu	Master of Technology
2020	01	B.E.	Electronics & Comm. Engg.	NIT Hamirpur, Hamirpur, HP	M Tech
2020	01	B.E.	Electronics & Comm. Engg.	Punjabi University Patiala	Electronic and communication m.tech
2020	02	B.E.	Electronics & Comm. Engg.	SLIET, Longowal	Master of engineering (M.tech)
2020	01	B.E.	Electrical & Instrumentation	IIT Kanpur	MS(Research)

			Engg.		
2020	01	B.E.	Food Engg. & Tech.	Indian institute of plantation management, malathalli, Banglore	Post graduation diploma management
2020	01	B.E.	Food Engg. & Tech.	School of science	Tripura civil service
2020	01	B.E.	Food Engg. & Tech.	SLIET, Longowal	M.tech in food engineering and technology
2020	01	B.E.	Food Engg. & Tech.	TOCKLAI TEA RESEARCH INSTITUTE	PG Diploma In Tea Processing And Management
2020	01	B.E.	Electrical & Instrumentation Engg.	Chanakya IAS Academy	Bihar public service commission
2020	01	B.E.	Electrical & Instrumentation Engg.	IIT Jodhpur	Cyber Physical System
2020	01	B.E.	Electrical & Instrumentation Engg.	IIT Jodhpur, Rajasthan	M.tech
2020	01	B.E.	Mechanical Engg.	IIT, Delhi	Ph.D. in Applied Mechanics
2020	01	B.E.	Mechanical Engg.	IIT, Delhi	Ph.D.
2020	01	B.E.	Mechanical Engg.	IIT, Delhi	Ph.D.
2020	01	B.E.	Mechanical Engg.	IIT, Indore	Mtech in Material science and engineering
2020	01	B.E.	Mechanical Engg.	Indian Institute of Technology, Tirupati	PhD
2020	01	B.E.	Mechanical Engg.	SLIET, Longowal	M-tech tecg
2020	01	B.E.	Mechanical Engg.	A.L.S	Upsc
2020	01	B.E.	Mechanical Engg.	IIT KHARAGPUR	intellectual property law
2020	01	B.E.	Mechanical Engg.	IIT KHARAGPUR	intellectual property law
2020	01	B.E.	Mechanical Engg.	NIT agartala	M.tech
2020	01	M.Sc.	Chemistry	ANNUVRAT MAHILA SHIKSHAK PRASHIKSHAN MAHVIDHYALAYABANKALI, BHILWARA	B.Ed
2020	01	M.Sc.	Chemistry	Institute of NanoSciene and technology, Mohali	PhD Chemistry
2020	01	M.Sc.	Chemistry	MDU, Rohtak	B.Ed
2020	01	M.Sc.	Chemistry	SLIET, Longowal	msc chemistry
2020	01	M.Tech.	Computer Science & Engg.	SLIET, Longowal	Doctor of Philosophy
2020	01	M.Tech.	Computer Science & Engg.	Thapar university	Phd
2020	01	M.Tech.	Food Engg. & Tech.	IIT Kharagpur,	Ph.D. in Food Engineering
2020	01	M.Tech.	Electrical & Instrumentation Engg.	MNIT, Jaipur	Doctor of Philosophy
2020	01	M.Tech.	Electrical & Instrumentation	NIT ROURKELA, ROURKELA (ODISHA)	PHD in ELECTRICAL

			Engg.		ENGINEERING
2020	01	M.Tech.	Electrical & Instrumentation Engg.	NIT Silchar	PhD
2020	01	M.Tech.	Electrical & Instrumentation Engg.	NIT Silchar	PhD
2020	01	M.Tech.	Electrical & Instrumentation Engg.	NIT Silchar , Assam	PhD
2020	01	M.Tech.	Electrical & Instrumentation Engg.	NIT, Silchar	Doctor of Philosophy (Ph.D.)
2020	01	M.Sc.	Mathematics	C.R college of education, hissar(gju) Haryana	B.ed (BACHELOR'S OF EDUCATION)
2020	01	M.Sc.	Mathematics	Choudhary Banshi Lal University bhiwani	B.ed
2020	01	M.Sc.	Mathematics	SLIET, Longowal	Pgmath
2020	01	M.Tech.	Mechanical Engg.	IIT KHARAGPUR, WEST BENGAL	DOCTOR OF PHILOSOPHY
2020	01	M.Sc.	Physics	BITS Pilani , Goa campus	Doctor of Philosophy
2020	01	M.Sc.	Physics	Modern college veer kalan	B.ed
2020	01	M.Sc.	Physics	SLIET, Longowal	MSC PHYSICS
2020	01	M.Sc.	Physics	SLIET, Longowal	Msc physics

5.2.3 Students qualifying in state/ national/ international level examinations during the year (e.g: NET/SET/SLET /GATE/ GMAT / CAT/GRE/ TOFEL/Civil Services/State Government Services)

Items	No. of Students selected/ qualifying	Registration number/roll number for the exam
GATE	39	CH20S38027083, CH20S38036008, CH20S38036072, CH20S38036360, ME20S28036124, ME20S28036276, ME20S28036074, ME20S28036128, ME20S18036222, ME20S28036156, ME20S23063152, ME20S18036156, EE20S58036206, EE20S58036100, EE20S58036051, EE20S58036291, EE20S58036025, EE20S58036250, EE20S58036038, EE20S58036033, EE20S58036227, EE20S58036192, IN20S18036013, IN20S18036093, IN20S18036081, EC20S48036096, EC20S48036112,

		CS20S68036066, CS20S68036300, CS20s68036192, CS20S68036330, CS20S68036032, CS20S68036012 CS20S68036136 CS20S68036114 CS20S68036211 CS20S68036062 CS20S68036071 XE20S38036543
NET	06	Uma (PB1116200332), Renu (434841), Anju (DL0116215189), Nishu (-),107801, PG/PHY/1750415
GMAT	11	CS20S68036066, CS20S68036300, CS20S68036192, CS20S68036330, CS20S68036032, CS20S68036012, CS20S68036136, CS20S68036114, CS20S68036211, CS20S68036071, CS20S68036062
State Government Services	01	20370700192
Any Other	01	A3-IN620-S-4383011 20207970029

5.2.4 Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Participants
Yoga	Inter technology university tournaments	12
Volleyball	Inter technology university tournaments	22
Basket Ball	Inter technology university tournaments	12
Football	Inter technology university tournaments	18
Cricket	Inter technology university tournaments	16
Taekwondo	All India inter University	04
Madhuram / Social Fest	National	250

5.3 Student Participation and Activities

EFFICYCLE 2019

The 10th season of "Efficycle 2019"(Technological Advancement Season), a student competition by Society of Automotive Engineers Northern India section (SAE-NIS) was hosted at Lovely Professional University (LPU), Jalandhar from 01st-05th October 2019. This competition tasks for engineering students all over India to design and build human-powered vehicle namely “EFFICYCLE”.

The Sant Longowal Institute of Engg. & Technology (SLIET), Longowal team “Green Rangers 2019” under the guidance of Dr Shankar Singh, Professor (Mechanical) as Faculty Advisor, conceptualized a green and innovative project, which required designing and later fabricating a three-wheeled hybrid human powered vehicle. This pollution free and reliable vehicle has the capacity to act as a good viable option for local transportation. Consequently, the SLIET team “Green Rangers 2019” (thirteen team members-11 from Mechanical and two from Electrical department) participated in Efficycle 2019- Advance Category. ***The vehicle number assigned was 108. The SLIET team outperformed the participating teams including IITs, NITs and were adjudged the Winner of Gradient Simulator Award (Advance Category) and Utility Demonstration Award (Advance Category), alongwith cash award.*** The Great achievement is usually born of great

sacrifice and excellent teamwork. The team under the dynamic guidance of Prof. Shankar Singh has been participating successfully in Efficycle events since 2014 and have brought several laurels for the institute. The aspirations and efforts of the team are well appreciated by Dr. Shailendra Jain, Director, SLIET.

SLIET Efficycle 2019 (#108)

SLIET Efficycle 2019 (#108) racing

Team "Green Rangers" with Director, SLIET

Director, SLIET riding Efficycle

BAJA SAE INDIA 2020

The 13th season of BAJA SAE INDIA 2020, a student competition by Society of Automotive Engineers (SAE) India, tasks for engineering students all over India to design and build an All-Terrain Vehicle (ATV). This event was hosted by Chitkara University, Chandigarh from 5 th March to 9 th March 2020.

SLIET, Longowal team 'Junkyard Warriors 2020' comprising 21 members designed and fabricated the All-Terrain Vehicle (ATV) [# 58 under the guidance of Prof. Shankar Singh Faculty Advisor, participated in the event.

The team bagged 'Pride of Punjab' award. The aspirations and efforts of the team are well appreciated by Dr. Shailendra Jain, Director, SLIET.

SLIET ATV 2020 (#58) "Pride of Punjab"

Winning Team "Junkyard Warriors" with Director, SLIET

7th GKDC 2020

SLIET Team 'JUGGERNAUTS' comprising of 24 members (of GME & GWT branch) participated in 7th Go Kart Design Challenge Season (GKDC) (2019-20), at Kari Motor Speedway, Coimbatore, Tamil Nadu from February 10, 2020 to February 14, 2020.

The team designed and fabricated the 'Go Kart' at SLIET under the guidance of Prof. Shankar Singh, Faculty Advisor. About the Event Go Kart Design Challenge is a competition initiated by Indian Society of New Era Engineers (ISNEE) to bring, to enhance, better engineering approaches and practices in degree students.

Performance at the Event: The **SLIET 'Team Juggernauts' (Kart No. #80; JORAWAR)** performed well at Kari Motor Speedway, and secured the following ranks –

1. **Design Evaluation – 1st**
2. **Disassemble Test – 2nd**
3. **Acceleration – 4th**
4. **Skid-pad – 3rd**
5. **Endurance – 4th**
6. **OVERALL – 3RD Team '**
7. **Best Captain Award**

Team ‘Juggernauts’ with Faculty Advisor

SLIET GO Kart No. #80; JORAWAR

5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/ international level (award for a team event should be counted as one)

Year	Name of the award/ medal	National/ International	Sports	Cultural	Student ID number	Name of the student
01.07.19	01	NIL	yoga	-	GFT-1940160	RAHUL SINGH
					GCS-1940021	ADARSH KUMAR
					CTP-1810025	ABHISHEK RAJ
					CTP-1810002	HARMANPREET
					CTP-1810003	KHUSHDEEP
					CDE-1810258	SHEKHAR KUMAR
01.07.19	01	NIL	Volleyball (G)	--	PG/CSE/1950006	PRIYA LAXMI
					GCS/1730960	AASHEEL KUMARI
					GCS-1730962	ANKITA
					GCT-1830163	KIRTI
					GEC-1730982	ANJALI SINGH
					GEC-1730981	KUMARI BEENA

					GWT-1731812	BARKHA KUMARI
					GCS/1930024	KHUSBO SAHNI
					DCS/CDE/1712805	GAGANDEEP
					GCS/1930067	NISHA KUMARI
					GCT/1830751	KARAN RANA
01.07.19	01	Nil	Volleyball (B)	-	GME/1731767	NITIN KUMAR
					GWT/1731818	SHARANJIT
					GCS/1930072	VISHAVA CHANDRA
					GIN/1830364	ANAND KUMAR
					GWT/1831060	KARAN
					GFT/1931006	PARDEEP SHARMA
					CDE/1810246	KUNAL
					GIN/1932004	NIKHAL ANAND
					GIN/1932003	AVINASH RAI
					GFT/1731946	ANKIT TANDAN
					GWT/1933047	ABHISHEK KUMAR

5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

There is no Student Council in the Institute, but the Institute has given due representation to its students in academic & administrative bodies/committees at Institute level/ department level/hostel level like IQAC Cell, Innovation Cell, Software Development Club, Internal Complaints Committee, Tech-Fest Committee, Sports Committees, Discipline Committee, Class Representatives etc, who are working for the welfare of students, round the clock. Some of them are as under:

STUDENT COUNSELLING SYSTEM at SLIET

The institute has adopted student counselling system for the benefit of the student. Each class after admission to the BE and ICD program shall be assigned to a Class Counsellor. Counsellor meets students once in a week. Students are expected to keep constantly in touch with their counsellors so that he may watch their progress and guide them for career progression, academic programme and registering in the semester. The course counsellors work one-on-one with students, performing a range of assessments to pinpoint their strengths and help them for improvement.

Student Mentor Scheme (SMS)

The Student Mentor(s) is a team of senior students to help junior students and are trained to offer help and support to new entrants throughout their campus life as well as academic activities. They are assigned the role of Student-Mentor for a batch of about twenty students from the same engineering department. The Student Mentors offer support in lots of areas like help in academic and non-academic queries or concerns, the students have, helping opportunities to meet other students from the course, referencing, subject notes and what to expect from the course, Students' Union

activities, clubs and societies to get involved in, using turn-it-in and Learning Central and helping prepare for competitive examination, insider tips on surviving the first year in the Institute and student life specific to the department, giving relevant, recent and reliable advice that they have been trained to provide, advice on accessing specialist support services etc.

TUTOR-GUARDIAN SCHEME (TGS)

Tutor-Guardian Scheme (TGS) has been introduced in S.L.I.E.T. Longowal to have one to one interaction with students. Teacher from same engineering department along with teachers from non-engineering departments is assigned the role of Tutor-Guardian for a batch of about twenty students. Teacher Guardian works as a friend, philosopher and guide for these students. He keeps the track of every student's day-to-day activities and records daily attendance, test results, internal assessment, preliminary examination results and other related information of students in a teacher guardian book. He motivates students to excel in their studies and also encourages them to participate in co-curricular & extracurricular activities and gives regular about the assigned students to the parents/guardians. He also counsels the students to solve difficulties encountered not only in college campus but in their personal lives too. The teachers of the institution take up the responsibility of safeguarding and nurturing the newly admitted students and help them to get acclimatized to S.L.I.E.T. environment. The students are free to contact the counselling service with a wide range of worries, including personal, home and family relationships, depression, anxiety and loneliness.

5.4 Alumni Engagement

5.4.1 Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words):

Yes, alumni Association are registered with No. DIC/DRA/10723 of. 2017. The alumni Association working on the upliftment of students in various aspects.

5.4.2 No. of registered Alumni: 2500

5.4.3 Alumni contribution during the year (in Rupees) : 70000

5.4.4 Meetings/activities organized by Alumni Association :

Date	Activity	Remarks
August 26, 2019 Abhivyakti	Mr Krishan Sharma (GIN/95) Manager Professional Services at NetSuite Oracle Mandeep Singh (GIN/95) Associate Professor TIET	The journey from Sliet to Oracle and Opportunities in Software Company
August 30, 2019 Movie Promotion	SAAK Movie Produced by Mr Rupinder Minhas	Student Interaction with Cast
August 31, 2019 Campus to Corporate	Mr Ishan Goyal, Mr Subhash Kamboj, Abhishek Wadhwa and Mr Lalit Singla	Visit to campus during C2C
September 9, 2019	Reunion Ludhiana Chapter	Meet of Ludhiana Chapter
October 7, 2019	Mr Rajnish Kumar Chaubey (GCS-99) Scientist, DRDO	Almamater Visit
October 16, 2019 Seminar	Mr Harpreet Singh Bhui (GWT-96) Director BRAHM Engineers	Automation in Welding technology
February 15-16, 2020	Annual Alumni Meet SLIET Campus	Student Alumni Interaction Reunion Meeting with T&P
June 28, 2020	Mr Parveen (IT Director CIFF)	Webinar - A Journey to Top

CRITERION VI –GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 Mention two practices of decentralization and participative management during the last year (maximum 500 words)

Sant Longowal Institute of Engineering & Technology (SLIET), Longowal is an autonomous body having the status of Deemed-to-be-University since 2007, fully funded and established by the Government of India. It is controlled by SLIET Society, registered under Societies Registration Act, 1860. As per Memorandum of Associations, Director, SLIET, Longowal

or any other Competent Authority of the Institute may delegate his powers to other employees of the Institute for betterment of the Institute. Director, SLIET, Longowal has a team of following officers for execution of Institute's day to day affairs:

1. All academic related matters of the students are decentralized and are being looked after by Dean (Academics).
2. All hostel/mess related matters of the students are decentralized and now being dealt with by Dean (Student Welfare).
3. Work related to research & consultancy activities in the Institute is looked after by Dean (Research & Consultancy).
4. Works related to store, purchase infrastructure facilities, repair & maintenance of the Institute is decentralized and is being looked after by Dean (Planning & Development).
5. Dean (Faculty & Staff Welfare) is working for the welfare of the Institute staff and faculty, helping the Director while framing rules related to leave, recruitment, health centre, trainings etc.
6. Registrar is looking after all the Administration and Accounts related matters.
7. Director has delegated his powers related to sanction of leave to faculty & staff to Dean (FSW), concerned HOD/Section Incharge.

6.1.2 Does the institution have a Management Information System (MIS)?

Yes/No/Partial: : Yes

Partial (a) Central Library b) Central Admission Cell c) Examination Cell d) Accounts Section e) Store & Purchase Section. ERP Development in implemented in Academics section and progress is continue.

6.2 Strategy Development and Deployment

Globalization is the new paradigm, a driver for bringing about a change and has impact on nearly every economy. Present need of the hour for quality excellence is to think and act from the global perspective. To meet out challenges present situation requires efficient use of optimal resources and management tools. Competitive intelligence in India has a bright future and key tool in inculcating core competency amongst the various areas of the nation such as agriculture, health, engineering, transformation of technology, education and so on. Although intelligence does not guarantee organization with 100 percent success but gives an insight to ensure effective deployment of resources in the competitive environment for sustenance. To address this challenge SLIET, Longowal has taken new initiative by establishing war room in the year 2019. Under war room we have identified 8 pillars such as : (a) Branding Perception (b) Outreach & Inclusivity (c) Research and Professional Practices (d) Graduation Outcome (e) Infrastructure Creation (f) Financial Parameters (g) Students Counselling and (h) Academic Excellence. From 2019 onwards institute has arranged 5 war room meetings between internal faculty and expert under the guidance of management. Some of the initiatives have been taken as :

a) Branding Perception – To enhance the brand name' the institute has taken a leading role by advertising; quality of institute by broadcasting about SLIET, Longowal in Radio Mirchi and PTC Channel.

b) Outreach & Inclusivity: To strengthen industry linkages at Local Area, Regional Area State Level and National Level Institute is putting its best efforts to sign MOU's with industry, interacting with institutions of repute.

c) Research and Professional Practices: To get recognition at the global level institute faculty is establishing modern labs, getting MODROB and Thrust areas projects and publishing quality papers in the journals of repute.

d) Graduation Outcome: For better placements of the students institute is visiting many industries all over India especially northern region Punjab, Haryana, Himachal Pradesh, Chandigarh, Noida Delhi and some other parts of the country. Training and Placement cell is also arranging expert talks and personality development programmes for skill up gradation of the students.

e) Infrastructure Creation: To provide best inputs to the students' institution has taken a lead by providing good food, good accommodation, smart class rooms and internet facilities to the students.

f) Financial Parameters: To utilize the resources and funds , accounts and audit department is preparing activities chart every year.

g) Academic Excellence: To improve academic excellence institute is exploring new models of teaching, revision of course curriculum, timely conduct of examination, evaluation and monitoring of the students.

h) Students Counselling: To guide the students' special cell Tutor Guardian scheme has been introduced and students have been allocated to every faculty- to increase the interaction between faculty and students and to involve them in

constructive activities.

6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each**):**

❖ Curriculum Development

The Institute has been alive to the fast-changing social, economic and industrial scenario. The Institute has adopted the semester system in place of the annual system of examination for effective organization of teaching, learning and evaluation. This includes the introduction of continuous evaluation on the criteria of attendance, minor tests, assignments/classroom performance and end term examination (ETE). Institute has implemented AICTE Model Curriculum since 2018.

❖ Teaching and Learning

- Transparency is maintained in the whole of the admission process.
- Reservation of seats for differently-abled individuals is strictly followed as directed by the Central Government.
- The Semester system has been introduced and continuous evaluation has been made part of the evaluation programme.
- The Institute has established a Training & Placement Cell which looks after the placement of all the students of the Institute.
- Chief Counsellor is coordinating counselling system through class counsellors.
- Tutor Guardian and Student Mentorship Scheme to bridge the gap between faculty and students.

❖ Examination and Evaluation

- Examinations are conducted at a centralised place having a CCTV and mobile jammers to prevent examination related malpractices by the students.
- Seating arrangement and details are provided to the students before examinations.
- For the smooth conduct of evaluation, each department arranges the centralised evaluations of the end term examinations.
- The evaluated answer sheets are shown to the students to introspect their mistakes so that can be rectified in future.
- Academic calendar is modified to allow students to see evaluated answer sheets of end term examinations.

❖ Research and Development

- The research work is undertaken by the faculty and research scholars of the Institute in the interdisciplinary areas to provide preventive and productive solutions for the problems of industry and community.
- Targets are fixed at Department level for submitting externally funded projects.
- "SLIET Research Project Award" (SRPA) is introduced under which cash incentives to the SLIET Faculty for obtaining Externally Funded Projects from Extra-Mural Funding Agencies is given.
- "SLIET Quality Publication Award" (SQPA) has been introduced for Institute students under which they are give cash incentive for publishing research papers in Web of Science Journals with impact factor 1.0 or above.

❖ Library, ICT and Physical Infrastructure / Instrumentation

- Library is automated with 30 number of computers, 01 printer for general access. Online access to content management system for e-learning and has a participation in resource sharing networks/consortia (like INFLIBNET).
- Reading room remains open on 24X7 basis
- Register is maintained in the Library to raise demand of books by the students.

❖ Human Resource Management

- Human Resources are managed effectively through the meetings of the management with the heads of the departments/ sections.
- On need basis time to time the staff is transferred from one department/ section to another to make effective utilization of human resources.

❖ Industry Interaction / Collaboration

- Institute has a centralized Training and Placement Cell, which conducts various activities for the students. The Cell works to enrich the knowledge of the students by organizing Seminars/ Workshops/ Webinars/ Classes with help of experts invited from industry and educational Institutes.

- Dean (Research & Consultancy) is looking after promotion of Industry- Institute Collaboration.

❖ Admission of Students

- The admissions to Certificate-Diploma Program, Lateral Entry to UG Programs and Ph.D. Programs are made through SLIET Entrance Test (SET) conducted by the Institute at national level.
- All admissions in the Institute including for Ph.D. programmes are made on merit following reservation policy of the Centre Government.
- Admission to UG 4-year program is through JEE (Mains), for M.Sc program it is through Centralized Counselling for M.Sc/M.Sc (CCMN) along-with other NITs/IITs and CFTIs. The institute holds its own National Level Entrance test for the vacant seats (if any).
- The admissions to M.Tech programs is being done through Centralized Counselling for MTech / MArch/ MPlan (CCMT) along-with other NITs/IITs and Centrally Funded Technical Institute (CFTIs). The admission to MBA program is based on Common Management Admission Test (CMAT) score and the institute may hold its own National Level Entrance test for the vacant seats (if any) Admissions to the Ph.D. Programmes are based on written test/ interview of the candidates short-listed by the Departmental Research Committee (DRC) of the Department concerned. The admission process is online with each-and-every information available online for the information of the candidates

6.2.2: Implementation of e-governance in areas of operations:

❖ Planning and Development

- All the tenders are invited through e-tendering process
- All the procurement is being made using GeM Portal.

❖ Administration

- The Institute has invited applications for recruitment of both Teaching & Non-teaching through Online mode.

❖ Finance and Accounts

- ERP Module has already been introduced in the Finance & Accounts Section of the Institute.

❖ Student Admission and Support

- All the process related to admission at SLIET like application for admission, submission of Fee, issuance of Admit Cards for Entrance Tests & counselling are done using online module.

❖ Examination

- Process of ERP has already been initiated.

6.3 Faculty Empowerment Strategies

6.3.1 Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support (Rs.)
2019-2020	Asim Ali Khan, AsP (EIE)	International conference on communication		1,98,400.00
2019-2020	Payal Malik, AP (Chy)	STC on "Advanced Nanomaterials for Energy Storage Devices (NESD-2019)", during 19/10/19 to 23/10/19 at NIT, Kurukshetra.		10,000.00
2019-2020	Anshuka Bansal, AsP (EIE)	ATAL Training Programme on "Internet of Things (IOT)" at NITTTR, Chandigarh from 25/11/19 to 29/11/19.		TA/DA as per rules.
2019-2020	Sunil Kumar Bansal, AP (EIE)	ATAL Training Programme on "Internet of Things (IOT)"		5400.00 2500.00
2019-2020	Vikas Nanda, Professor(FOOD	"46th Apimondia International Apicultural Congress" at Montreal,		1,14,000.00

	EGG. & TECH.)	Canada, from 08/09/2019 to 12/09/2019		
2019-2020	Yogesh Kapil, AP (Math)	Advanced Training on "AIS – Advanced Liner Algebra (2020)" from 11/05/20 to 30/05/20 at Indian Statistical Institute, Bangalore.		36,000.00
2019-2020	Yogesh Kapil, AP (Math)	International Conference on Recent Advances in Algebra, Analysis & Applications (ICRAAAA-2019) FROM 20/12/19 TO 22/12/19 AT Mohanlal Sukhadia University, Udaipur (Rajasthan)		18,000.00
2019-2020	Amandeep Singh Shahi, Professor (ME)	"TMS 2020, 149th Annual Meeting & Exhibition" scheduled to be organized by The Minerals, Metals and Materials Society, USA (TMS), at San Diego, California, USA.		2,00,000.00
2019-2020	Lalit Ahuja, AP (ME)	2nd International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMMT 2019)" at BITS Pilani Campus, Dubai (UAE) from 20/11/19 to 22/11/19		1,07,800.00
2019-2020	Kanika Aggarwal, AP (Physics)	3rd International Conference on "Condensed Matter & Applied Physics (ICC-2019) at Govt. Engg. College, Bikaner, Rajasthan during 14/10/19 to 5/10/19.		23,705.00
2019-2020	Kanika Aggarwal, AP (Physics)	STC on "Advanced Functional Materials" from 30/12/19 to 03/01/20 at NIT, Jal.		13,790.00
2019-2020	Hemant Kumar, AP (Chemistry)	--	Registration fee for 23rd Pb. Science Congress	2,000/-
2019-2020	Hemant Kumar, AP (Chemistry)	--	Membership feePb. Academy of Science	500/-
2019-2020	Shailendra Jain, Director	--	Renewal of IEEE Membership for the year 2020	6,090.00
2019-2020	Manpreet Singh Manna, AsP (EIE)	--	IEEE Annual Membership for 2020	6,035.00
2019-2020	Dr. M.S. Manna, AsP (EIE)	Management Capacity Enhancement Programme	-	8,685.00
2019-2020	Dr. Amrik Singh, AsP (ME)	STC on Advanced CA-CAM applications in CNC Machining	-	11,806.00
2019-2020	Dr. Amrik Singh, AsP (ME)	Workshop on Low Cost Automation Culture towards Intelligent Automation – Industry 4.0 (LCA)	-	37,703.00
2019-2020	Dr. Raj Kumar, AsP (EIE)	Workshop on Low Cost Automation Culture towards Intelligent Automation – Industry 4.0 (LCA)	-	37,703.00
2019-2020	Dr. Manmohan Singh, AsP (EIE)	Training on Internet of Things	-	12,397.00
2019-	Dr. Sunil Kumar,	Training on Robotics and Automation	-	0.00

2020	AP (ME)				

6.3.2 Number of professional development / administrative training programmes organized by the University for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From Date	To date	No. of participants (Teaching staff)	No. of participants (Non-teaching staff)
2019	STTP on "Material Characterization and Analytical Techniques for Research Applications" (SLIET, Longowal)	-	01st July 2019	5th July 2019	14	-
2020	STTP on "PLC Drives and Industrial Automation"	-	2nd March 2020	6th March 2020	20	-
2020	STC on Analytical Techniques in the realm of Molecules & Materials	-	26th June 2020	-30th June 2020	-	-
July-2019	Materials Characterization & Analytical Techniques for Research Applications (MCATRA- 2019)	-	01/07/2019	05/07/2019	50	-
July-2019	TEQIP- III Sponsored STTP on Materials Characterization and Analytical Techniques for Research Application	-	01/07/2019	05/07/2019	30	-
October-2019	TEQIP- III sponsored 02-day workshop on Low and High-Frequency Designs using TaraNG:19.0	-	05/10/2019	06/10/2019	04	-
November- 2019	Organized a TEQIP-III Sponsored on-week short term training Programme on Nano-Electronics & VLSI Circuits and Systems	-	04/11/2019	08/11/2019	46	-

November- 2019	TEQIP- III Sponsored STTP on Synthesis and Characterization of Multifunctional Materials held at NIT Uttrakhand, Srinagar Campus under twinning Programme	-	11/11/2019	15/11/2019	35	-
November- 2019	Faculty Development Programme under Universal Human Values	-	15/11/2019	17/11/2019	51	-
December- 2019	3D Printing & Design	-	09/12/2019	13/12/2019	49	-
January- 2020	Residential Faulty Development Programme on Student Induction under Universal Human Values	-	04/01/2020	10/01/2020	53	-
February - 2020	TEQIP- III Sponsored STTP on Advanced Functional Materials, Characterization & Applications was organized at MNIT Jaipur (Satellite Campus of NIT Uttrakhand) under twinning programme	-	29/02/2020	04/03/2020	27	-

6.3.3 No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From	To	Duration In Day
"46th Apimondia International Apicultural Congress" at Montreal, Canada	1	08.09.2019	12.09.2019	5
"Third International Conference of Mathematical Sciences (ICMS 2019)" organized at Maltepe University, Istanbul, Turkey	1	05.09.2019	08.09.2019	4
2nd International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMMT 2019)" at BITS Pilani Campus, Dubai (UAE)	1	20.11.2019	22.11.2019	3
3rd International Conference on "Condensed Matter & Applied Physics (ICC-2019) at Govt. Engg. College, Bikaner, Rajasthan	1	14.10.2019	15.10.2019	2

Advanced Training on "AIS – Advanced Liner Algebra (2020)" at Indian Statistical Institute, Bangalore.	1	11.05.2020	30.05.2020	20
AMRP-2020	1	09-11-2020	11-11-2020	3
ATAL Training Programme on Internet of Things (IOT)	1	25.11.2019	29.11.2019	5
Data Sciences	1	16-12-2019	20-12-2019	5
Deliver a Lecture	1	21-04-2020	22-04-2020	2
Developing Employability and Entrepreneurship as Cornerstones in Higher Education	1	16-11-2019	17-11-2019	2
FDP on Student Induction Program under universal Human Values	31	04-01-2020	10-01-2020	7
ICT –Driven Innovation in Higher Education in Asia Pacific'	1	24-09-2019	25-09-2019	2
IEEE International Conference on Digitization (ICD-2019)	1	18-11-2019	19-11-2019	2
Indo Russian Joint Project	1	10-06-2019	23-06-2019	14
International Conference on Recent Advances in Algebra, Analysis & Applications (ICRAAAA-2019) AT Mohanlal Sukhadia University, Udaipur (Rajasthan)	1	20.12.2019	22.12.2019	3
Japan-India-Russia Symposium on Geospatial data for Environmental Monitoring (JIRSGEM) - 2019	1	16-10-2019	18-10-2019	3
Leadership for Academicians Programme (LEAP)	1	11-11-2019	22-11-2019	12
Leadership for Academicians Programme (LEAP)	1	06-01-2020	10-01-2020	5
Machine Learning and Deep Learning Applications in Engg. & Science	1	16-05-2020	20-05-2020	
MATALAB Applications in Engg. & Science	1	27-05-2020	01-05-2020	6
Pedagogy of Scientific Writing , Reporting and Scholarly Networks	1	19-06-2020	23-06-2020	5
SMP under Shastri Indo Canadian Institute in the field 'Biological Sciences and Bioengineering'	1	11-02-2020	29-02-2020	18
STC on "Advanced Functional Materials" at NIT, Jal.	1	30.12.19	03.01.20	5
STC on "Advanced Nanomaterials for Energy Storage Devices (NESD-2019)", at NIT, Kurukshetra.	1	19.10.2019	23.10.2019	5
Steady dynamic and crep recovery studies and modeling of Pearl millet starch	1	09-07-2019	12-07-2019	4
Summer Faculty Research Fellow Programme-2019	1	13-05-2019	14-07-2019	2
Vice Chancellors & Presidents' Summit	1	25-11-2019	26-11-2019	2
Women Scientists & Entrepreneurs Conclave (WSEC)-2019'	1	07-11-2019	08-11-2019	2
"TMS 2020, 149th Annual Meeting & Exhibition" scheduled to be organized by The Minerals, Metals and Materials Society, USA (TMS), at San	1			

Diego, California, USA.				

6.3.4 Faculty and Staff recruitment (no. for permanent/fulltime recruitment):			
Teaching		Non-teaching	
Permanent	Fulltime	Permanent	Fulltime
125	23	196	18

6.3.5 Welfare schemes for	
Teaching	All teaching and non-teaching staff has been provided Institute bus facility to purchase daily need goods from Sangrur. The Institute has appointed Authorized Medical Attendants for providing medical assistance in emergency cases.
Non teaching	All teaching and non-teaching staff has been provided Institute bus facility to purchase daily need goods from Sangrur. The Institute has appointed Authorized Medical Attendants for providing medical assistance in emergency cases.
Students	Online/Offline Scholarship by State/ Govt. of India
	SC and OBC scholarship under Dr. Ambedkar Scheme Punjab State Government.
	**SC/ST/OBC/EBC scholarship under BIHAR State Government.
	Central Sector scheme for person with disability (N.S.P. 2.0)
	INDIAN –POSTAL services for the students of their employs.
	Minority Scholarship (NSP 2.0 Portal)
	MCM Scholarship
	SC, ST & OBC scholarship from Jharkhand State Govt.
	SC, ST & OBC scholarship from Himachal State Govt.
	SC and Gen. Scholarship from Utter Pradesh State Govt.
	SC, ST & OBC scholarship from Telangana State Govt.
	Scholarship for the students of Railway employs wards (Rail Coach Factory).
	Scholarship for the Punjab student's ward of Punjab Building and Constructing Workers Welfare, Board.
	State scholarship of Utrakhand State.
	State scholarship of Rajasthan State
	PMSSS for J & K students.
	Scholarship of Delhi Govt.

	SC, ST & OBC scholarship from Haryana State Govt.
	AICTE (**Tuition Fee Waiver**) .

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly
(with in 100 words each)

Internal Financial Audit: The accounts of the Institute open to Inspection by the Govt of India/Audit Party of the Principal Accounts Office/Chief Controller of Accounts, MHRD, New Delhi. The Account shall be audited by the internal auditors/Chartered Accountants of the Institute and the Institute have hired the service of Chartered Accountant for Internal Audit, the Internal Audit of the Institute has been conducted upto financial year 2019-20.

External Financial Audit: The Institute is fully funded by the Govt. of India and Grant is being regularly received from MHRD, New Delhi. The account of the Institute shall be open to Inspection by the Govt of India/Audit Party of the Principal Accounts Office/Chief Controller of Accounts, MHRD, New Delhi. The Accounts of the Institute finally to be audited by the Comptroller and Auditor General of India U/s 20(1) of the CAG of India (duties, powers & conditions of service) Act, 1971. The Audit of the Institute has been conducted upto the financial year 2019-20 by the Audit Party AG Punjab and Audit Report for the year 2019-20 is awaited from the office of The Principal Director of Audit (Central), Chandigarh.

6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year (not covered in Criterion III) : 0

Name of the non government funding agencies/ individuals	Funds/ Grants received in Rs.	Purpose
00	00	00

6.4.3 Total corpus fund generated 919.44 Lakh (as on 31.03.2020)

6.5 Internal Quality Assurance System

6.5.1 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic			Yes	Director, SLIET
Administrative	--	--	Yes	Director, SLIET

6.5.2 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges? (if applicable)

Not Applicable

6.5.3 Activities and support from the Parent – Teacher Association (at least three)

As scheduled in academic calendar 2019-20, the parent-teacher meet was held on ;

1. 11.10.2019 & 16.03.2020 – UG/PG
2. 11.10.2019 & 21.02.2020 – ICD

6.5.4 Development programmes for support staff (at least three)

No development programmes could be organized for the support staff due to COVID-19 pandemic.

6.5.5 Post Accreditation initiative(s) (mention at least three)

It is stated that the Institute has already filed SARs on the NBA portal for all the UG programs during the end of the year 2019 and starting of the year 2020. The dates for the expert team's visit were also filled up last year on the portal itself. However, due to Covid-19 pandemic, the visit of NBA team could not be

undertaken and hence the accreditation is in process.

6.5.6

A	Submission of Data for AISHE portal	Yes
B	Participation in NIRF	Yes
C	ISO Certification	No
D	NBA or any other quality audit	No

6.5.7 Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting activity	Duration (from----o----)	Number of participants
2019	STTP on "Material Characterization and Analytical Techniques for Research Applications" (SLIET, Longowal)	1st July 2019 to 5th July 2019	5 days	14
2020	STTP on "PLC Drives and Industrial Automation"	2nd March 2020 to 6th March 2020	5 days	20
2020	STC on Analytical Techniques in the realm of Molecules & Materials	26th June 2020 to 30th June 2020	5 days	0
2019	Materials Characterization & Analytical Techniques for Research Applications (MCATRA- 2019)	1st July 2019 to 5th July 2019	5 days	50
2019	TEQIP- III Sponsored STTP on Materials Characterization and Analytical Techniques for Research Application	1st July 2019 to 5th July 2019	5 days	30
2019	TEQIP- III sponsored 02-day workshop on Low and High-Frequency Designs using TaraNG:19.0	5th October, 2019 to 6th October, 2019	2 days	04
2019	Organized a TEQIP- III Sponsored on-week short term training Programme on Nano-Electronics & VLSI Circuits and Systems	4th November, 2019 to 8th November 2019	5 days	46
2019	TEQIP- III Sponsored STTP on Synthesis and Characterization of Multifunctional Materials held at NIT Uttrakhand, Srinagar Campus under twinning Programme	11th November 2019 to 15th November 2019	5 days	35
2019	Faculty Development Programme under	15th November 2019 to 17th November 2019	5 days	51

	Universal Human Values	(5 days)		
2019	3D Printing & Design	9th December 2019 to 13th December 2019	5 days	49
2020	Residential Faulty Development Programme on Student Induction under Universal Human Values	4th January 2020 to 10th January 2020	5 days	53
2020	TEQIP- III Sponsored STTP on Advanced Functional Materials, Characterization & Applications was organized at MNIT Jaipur (Satellite Campus of NIT Uttrakhand) under twinning programme	29th February 2020 to 4th March 2020	5 days	27

CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the year) : The ICC inquired into the complaints received under "Sexual Harassment of Women at Workplace (Prevention/Prohibition and Redressal) Act, 2013 as per provisions contained into the Act.

Title of the programme	Period (from-to)	Participants	
		Female	Male
Interactive Workshops on Gender Awareness/ Sensitization, for Girl students in GH-2 & 3	March 4th, 2020		
Cultural activities on Women's day	5 March 20		

7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Following initiative has been undertaken by the Institute for the perseverance of ecosystem.

1. A open oxidation pond for the treatment of waste water.
2. Use of waste water for irrigation of forest area of Institute.
3. Use of polythene is banned in the Institute.
4. One day (Friday) is observed as vehicle free day in the Academic Area of the Institute.
5. Organization of seminars for providing cleaning awareness around the Institute and surrounding village area.
6. One day (Thursday) in a week is observations natural light day, wherein minimum utilization of electric appliances is ensured in the various working place of Institute.
7. Percentage of power requirement of the University met by the renewable energy sources will be around 35% through Solar PV Power Plant as the process for installation of this project is in process.

7.1.3 Differently- abled (Divyangjan) friendliness

Provision of barrier free environment for persons with disabilities by providing ramps along with guide tiles in the various SLIET buildings has been provided in various civil modification works in the existing buildings of SLIET has been undertaken in this regard, such as in Mechanical Block, Science Block, central Library, Health Centre, Chemical Block, Computer Block, EIE& ECE Block, Administrative Block, Girls Hostel No. 1, 2 & 3, Guest House, Boys Hostel No. 1, 2, 3, 6, 7 & 10, Work Shop and Student Activates Centre.

In addition to above 2 ramps towards access to the 1st floor of building has also been provided for person with disabilities i.e 01 PWD ramp in between Chemical food Block and Science Block and another PWD Ramp for access to Electronic Block and Computer Block.

New PWD toilets including all PWD fitting has been constructed in different buildings (Chemicals & Food Block, Science Block and Mechanical Block).

Modifications of Bathrooms & Toilets with PWD fitting in various Academic in building and Hostels have been made for the convenience of persons with disability.

Items Facilities	Yes/No	No. of Beneficiaries
Physical facilities	Yes	4
Provision for lift	No	NIL
Ramp/ Rails	Yes	4
Braille Software/facilities	No	NIL
Rest Rooms	No	NIL
Scribes for examination	Yes	4
Special skill development for differently abled students	No	NIL
Any other similar facility	No	NIL

7.1.4 Inclusion and Situatedness

Enlist most important initiatives taken to address locational advantages and disadvantages during the year

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
2019-2020	01	01	22.11.2019	Green Diwali* (Under Happy Club)	Welfare of Workers & their family members	50
2019-2020	01	01	22.08.2019 to February 2020	**KOSHISH: EK NAYE UDAAN KI (Evening classes for construction workers Kids	The target students are of the age group 11-14 and are taught Mathematics, Science and English with the same syllabus as prescribed by	22

					the local State Boards.	
2019-2020	01	01	26.06.2020	219 persons with disabilities provided with tricycles, hearing aids and wheelchairs.	Social Justice and empowering the disadvantaged sections	3
2019-2020	01	01	14.06.2020	Ration provided to 235 needy families during COVID-19 lockdown.	Social Justice and empowering the disadvantaged sections	3
2019-2020	01	01	13.06.2020	School Bags, Stationery Items and Books distributed to children of disadvantaged groups and slum dwellers.	Social Justice and empowering the disadvantaged sections	3

7.1.5 Human Values and Professional Ethics		
Code of conduct (handbooks) for various stakeholders		
Title	Date of Publication	Follow up (maximum 100 words each)
Student Guide	June , 2019	The student guide has been helpful in making the students aware about the various rules and regulation to be followed while staying in the hostels. The various clause of student guide have been successfully implemented to maintain the discipline amongst the students of the Institute. The publication of this book helps in containing the menace of ragging in the campus. The modification, alteration or amendment in various rules have been done to remove any difficulties arising due to some extraordinary conditions like COVID-19.

7.1.6 Activities conducted for promotion of universal Values and Ethics			
Activity	Duration (from---)	Duration (to-------)	Number of participants
Residential Faulty Development Programme on Student Induction under Universal Human Values	04/01/2020	10/01/2020	53

7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)

Following initiative has been undertaken by the Institute for the perseverance of ecosystem.

1. An open oxidation pond for the treatment of waste water.
2. Use of waste water for irrigation of forest area of Institute.
3. Use of polythene is banned in the Institute.
4. One day (Friday) is observed as "NO MOTOR VEHICLE DAY" in the Academic Area of the Institute.
5. Organization of seminars for providing cleaning awareness around the Institute and surrounding village area.
6. Every Thursday is observations as "NATURAL LIGHT DAY", wherein minimum utilization of electric appliances is ensured in the various working places of the Institute.
7. Institute is in a process to install Solar Power Plant at SLIET, Longowal.
8. Plantation drives are organized at regular intervals.

7.2 Best Practices

Describe at least two institutional best practices

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

Following few best practices of the Institute are listed as below:

STUDENT COUNSELLING SYSTEM at SLIET

The institute has adopted student counselling system for the benefit of the student. Each class after admission to the BE and ICD program shall be assigned to a Class Counsellor. Counsellor meets students once in a week. Students are expected to keep constantly in touch with their counsellors so that he may watch their progress and guide them for career progression, academic programme and registering in the semester. The course counsellors work one-on-one with students, performing a range of assessments to pinpoint their strengths and help them for improvement.

STUDENT MENTOR SCHEME (SMS)

The Student Mentor(s) is a team of senior students to help junior students and are trained to offer help and support to new entrants throughout their campus life as well as academic activities. They are assigned the role of Student-Mentor for a batch of about twenty students from the same engineering department. The Student Mentors offer support in lots of areas like help in academic and non-academic queries or concerns, the students have, helping opportunities to meet other students from the course, referencing, subject notes and what to expect from the course, Students' Union activities, clubs and societies to get involved in, using turn-it-in and Learning Central and helping prepare for competitive examination, insider tips on surviving the first year in the Institute and student life specific to the department, giving relevant, recent and reliable advice that they have been trained to provide, advice on accessing specialist support services etc.

TUTOR-GUARDIAN SCHEME (TGS)

Tutor-Guardian Scheme (TGS) has been introduced in S.L.I.E.T. Longowal to have one to one interaction with students. Teacher from same engineering department along with teachers from non-engineering departments is assigned the role of Tutor-Guardian for a batch of about twenty students. Teacher Guardian works as a friend, philosopher and guide for these students. He keeps the track of every student's day-to-day activities and records daily attendance, test results, internal assessment, preliminary examination results and other related information of students in a teacher guardian book. He motivates students to excel in their studies and also encourages them to participate in co-curricular & extracurricular activities and gives regular about the assigned students to the

parents/guardians. He also counsels the students to solve difficulties encountered not only in college campus but in their personal lives too. The teachers of the institution take up the responsibility of safeguarding and nurturing the newly admitted students and help them to get acclimatized to S.L.I.E.T. environment. The students are free to contact the counselling service with a wide range of worries, including personal, home and family relationships, depression, anxiety and loneliness.

WAR ROOM CONCEPT

To address the challenges of modern era, SLIET has taken new initiative in the year 2019. Under war room we have identified 8 pillars such as : (a) Branding Perception (b) Outreach & Inclusivity (c) Research and Professional Practices (d) Graduation Outcome (e) Infrastructure Creation (f) Financial Parameters (g) Students Counselling and (h) Academic Excellence

In addition to above, the Institute has added student members in most of the committees, constituted at Institute level/ department level/hostel level like IQAC Cell, Innovation Cell, Software Development Club, Internal Complaints Committee, Techfest Committee etc.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

Sant Longowal Institute of Engineering & Technology | War Room (sliet.ac.in)

Sant Longowal Institute of Engineering & Technology | Tutor Guardian and Student Mentor Scheme (sliet.ac.in)

7.3 Institutional Distinctiveness

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust Provide the weblink of the institution in not more than 500 words

Sant Longowal Institute of Engineering & Technology (SLIET) is an autonomous body having the status of Deemed-to-be-University since 2007, fully funded and established by the Government of India. It is controlled by SLIET Society, registered under Societies Registration Act, 1860. The Institute awards Certificates, Diplomas and Degrees including M.Tech., M.B.A., M.Sc. and Ph.D. Further, it is clarified that: (a) The courses run by Institute are duly approved by AICTE / UGC. The educational programmes of this institute are non-conventional, innovative, practical oriented and contain all aspects of new education policy, Govt. of India. The Institute offers programmes at Integrated Certificate Diploma (ICD), Degree, Post-graduate (M.Tech., M.B.A. and M.Sc.) and Ph.D. levels in Engineering and Technology, Science, Humanities, Management. The Institute has spread over more than four hundred acres of land.

The main distinctive point of the Institute is that it offers flexible, modular, layered, multipoint entry/exit programmes in Engineering & Technology. The Institute offers higher level programmes (Ph.D.) after acquiring necessary competence at lower level programmes (Certificate level) of the Institute.

The Institute provides non-formal education and training to persons from unorganized sectors and school drops-out through its extension services, to enable them to acquire basic technical skills, so that they are successfully employed.

Admission to ICD (Integrated Certificate-Diploma) programme (3 year) through All India SLIET Entrance Test (SET) after Matric exam. • Provision of voluntarily exit after successfully completing 2 years (with requisite number of credits) of ICD Programme. • Provision of entry in 2nd year of ICD after ITI/Certificate with two years industrial

experience. • Diploma is awarded to students who completes 3 years of ICD with the prescribed credits as per teaching scheme successfully. • 50% of the SLIET Diploma holders fulfilling the requisite criteria will be promoted to 2nd year of B.E. on the basis of All India SLIET Entrance Test (SET) conducted by SLIET, Longowal.

The Institute offers following Courses:

i) Three Year Integrated Certificate -Diploma (ICD) Programme
ii) Under Graduate Programme
    a) Bachelor of Engineering (B.E.) (4 Year)
    b) Bachelor of Engineering (B.E.) (Lateral Entry)
iii) Post Graduate Programmes
    a) Mater of Technology (M. Tech.)
    b) Master of Business Administration (M.B.A.)
    c) Master of Sciences (M.Sc.)
iv) Ph.D. Programmes

Some of the necessary facilities for its students are as under:

Hostels: SLIET is a residential campus with ten hostels for boys and four for girls, accommodating about 3400 students which include about 1000 girl students equipped with all the requirements. The Institute has Workshop

Central Library, Computing Facilities, Health Centre, Bank, Post Office, Telephone Exchange and Shopping Centre, Student Activity Centre, Training and Placement Cell, NSS, NCC, Industrial visits, educational tours, departmental societies, SPICMACAY chapter, technical & cultural festivals, night playing facilities, eating points and reading rooms during the extra hours, green parks, strolling areas, gymnasium, swimming pool, herbal nursery are available.

Equal Opportunities Cell: The equal opportunities cell has been established in the Institute to oversee the effective implementation of policies and programmes for deprived groups [SC's, ST's, OBC's (non-creamy layer, minorities)] as per Government of India guidelines in order to enhance their employability.

Sant Longowal Institute of Engineering & Technology | Vision (sliet.ac.in)

8. Future Plans of action for next academic year (500 words)

Revision of ICD syllabus

Industrial collaboration

Creation of Digital Lecture Recording Studio

Every department has to develop at least two E-contents such as e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under-Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional [Learning Management System (LMS)].

Minimum two, 4-5 minutes video may be made by the faculty of each department on conceptual topics for the benefits of the students.

Fee collection using online module

Making provisions for Feedback Proformas, No Due Certificate in the Enterprise resource planning (ERP) meant for the students, leaving the Institute after completing their Degree

Organizing Health Awareness Camps

Collection of all fee, fine, document charges through online mode to promote digital transactions

Increase of number of industrial visits of students, at least two per department, per semester.

Minimum two workshops/Faculty Development Programmes (FDPs)/Seminars for the faculty in each department in every academic year.

Minimum two workshops/ Faculty Development Programmes (FDPs)/Seminars for the students in each department in every academic year.

Efforts be made to work on AICTE Training & Learning (ATAL) Courses.

Organize training programmes for the development of supporting/non-teaching staff

To organize workshops/seminars on social problems/environmental consciousness like

Swachata Abhayan, Plastic free campus etc.

Name **Prof. (Dr.) J.S. Dhillon** Signature of Coordinator, IQAC	Name **Prof. (Dr.) Shailendra Kumar Jain** Signature of the Chairperson, IQAC