



CURRICULUM DESIGNED TO MAKE YOU INDUSTRY READY

JAWAHARLAL NEHRU ENGINEERING COLLEGE

**RANKED 2ND IN MAHARASHTRA & 5TH IN INDIA
AMONGST PRIVATE ENGINEERING COLLEGES**

-AISEET 2019



Accredited with 'A' grade by NAAC



The second Best college in India for
Innovatively conducting classes in lockdown



Ranked **GOLD** by AICTE - CII Survey 2020
for Industry Institute Interaction



All India Second Rank in Prime Badge-A-Thon
(Ministry of Electronics & Information Technology, GOI)

www.jnec.org | www.mgmu.ac.in

MGM Campus, N-6, CIDCO, Aurangabad, 431003, Maharashtra, India.



MGM UNIVERSITY

MGM University in Aurangabad, established by the revered Mahatma Gandhi Mission Trust, a pioneer with four decades of excellence in education, research and service is now a Self-financed, State Private University, approved by Government of Maharashtra with the passing of MGM University Act 2019 by Maharashtra Legislative Assembly and Legislative Council. Setting a glowing milestone in the higher education history of Marathwada region of Maharashtra, its birth amid the world celebrations of the 150th Birth Anniversary of Mahatma Gandhi, in 2019, marks an auspicious beginning for MGM University. Gandhiji's philosophy and the timeless values that he has taught have been the spirit and the ever-inspiring force of MGM.

MGM University comprises five faculties of academics. The five faculties have been conceived to bring allied disciplines within a broad framework of inclusive entities - Colleges, Institutes, Centers and Gurukul.

The constituent institutions of MGM University are as follows:

- **Faculty of Engineering & Technology** - Jawaharlal Nehru Engineering College, Institute of Fire Engineering
- **Faculty of Management & Commerce** - Institute of Management & Research, Institute of Hotel Management
- **Faculty of Basic & Applied Sciences** - Institute of Biosciences & Technology, Dr. G.Y. Pathrikar College of Computer Science & Information Technology
- **Faculty of Social Sciences & Humanities** - College of Journalism & Mass Communication, MGM Film Arts, MGM Photography, Institute of Fashion Design, College of Fine Art, Institute of Indian & Foreign Languages, Institute of Social Sciences
- **Faculty of Performing Arts** - Mahagami Gurukul



करुणा, नीतिमत्ता, उत्कृष्टता

“JNEC -Age old Legacy of Empathy, Ethics and Excellence”

Jawaharlal Nehru Engineering College is a premier institute of engineering that has carved a niche for itself in the field of technical education from generations of students. The institute has made its presence felt in the world of technical education. Unique in its structure, method and goals JNEC is strongly rooted in the philosophy of training and research that enhances the relationship between knowledge and its application and seeks to promote the creation of an ideal society.

Vision

- To create self-reliant, continuous learner and competent technocrats imbued with human values

Mission

- Imparting quality technical education to the students through participative teaching-learning process
- Developing competence amongst the students through academic learning and practical experimentation
- Inculcating social mindset and human values amongst the students

JNEC- Four decades of academic excellence in technology and design

Why is JNEC Unique?

- JNEC has an illustrious academic legacy since 1983
- 24 UG, PG and Research Programs with 20 Minor and 14 Honours through Blended Learning in collaboration with Coursera Campus License and NASSCOM
- Minor Degrees in Program-Specific Data Science shall be offered to all students
- 30+ MOUs with eminent industries
- First & Only engineering institution having software suites for industry-oriented simulation technologies in collaboration with Hexagon Manufacturing Intelligence (USA)
- First engineering institution to have exclusive Drones/ Unmanned Aerial Vehicles, Smart/Green Mobility & Rapid Prototyping Reverse Engineering Laboratories
- EDC & StartUp Cell - Provides incubation eco-system for business ideas of students to establish StartUps while learning
- Placements across a variety of industry sectors
- Co-curricular opportunities such as TEDx JNEC, NASA zonal convention, Ankur innovative ideas/prototypes exhibition for First Year students, Razzmatazz



Engage More! Share More! Innovate More!

New Initiatives in 2021

- **Blended Learning Approach** - A uniquely designed Phygital (physical + digital) learning initiative of JNEC in collaboration with Coursera Campus License to build career-oriented latest skills through proctored online mentoring by globally acclaimed professors & offline laboratory sessions at JNEC with certification from world-class universities.
- **Offers Outcome Based Education** combination of hyper-specialized knowledge with cross-cultural capabilities through revolutionary curriculum
- **Problem Based Learning** through the co-designed and co-taught system
- **Engineering Exploration Lab** ignites interest, expands curiosity, fosters creativity and builds a strong foundation at the first-year level.
- **Project Based Learning** through industry internships, Industry oriented and mentored PG Programs
- **Global Tech Collaborations** MSC Hexagon USA, Christiani Sharpline Tech. Training (Germany) etc.
- **Industry supported Laboratories** Endress+Hauser, Tech Mahindra & 30+ MOU's with eminent industries
- **TATA Technology Ready Engineer Program**
- **Multidisciplinary Programs** simplifying academics through multidisciplinary short programs, minor degrees to maximize resources
- **Innovation Incubation Research Center (IIRC)** a multiple career ladder
- **JNEC offers a 360° Career map** with Drone, Reverse Engineering, Rapid Prototyping, E-Vehicle Laboratories
- Six months **Internship Program**
- **Value Based Education** creating professionals but shaping them as humans through Gandhian Philosophy/ Sustainable Education practices
- **15 Student Chapters** of professional bodies
- **Hobby Clubs** for nurturing talents
- **TEDx JNEC** -Pioneer TEDx event in Marathwada region
- JNEC hosted **62nd Zonal NASA** and have been a frequent participant
- Internal Quality Assurance Cell (**IQAC**)

PROGRAMS OFFERED

ARCHITECTURE

- **B. Arch. - 5 years full-time program | COA approved | 80 Intake**
- **M. Arch. (General Architecture) & M. Arch. (Environmental Architecture)**
- 2 years full-time program | COA approved | 20 Intake each

We develop sensitive and compassionate architects with skill, integrity and enthusiasm to create the architecture of goodness. Distinguished Senior and professional faculty members, interactive & flexible studio culture, International & national educational tours, Consultancy cell for professional exposure, this all together makes the program unique and outstanding.

The Master's courses launch interconnected relation amongst architecture, technology, conservation, landscape, ecology and sustainability, facilitating graduates to answer efficiently to the environmental challenges faced by the building industry and the planet earth.

CHEMICAL ENGINEERING

- **B. Tech. (Chemical Engineering) - 4 years full-time program | AICTE approved | 30 Intake**
- **Research Center in Chemical Engineering offering Ph.D program**

The program primarily focuses on preparing Chemical Process Industry ready and competent graduates. Through blended learning and outcome-based education, the primary emphasis of the program is on hands-on experience through core chemical engineering laboratory sessions, problem-based learning, mini and capstone project, seminar, six months internships in a process industry and Core Electives offered as per the industry needs. Interaction with global alumni network through invited lectures make students understand industry expectations and work culture. To achieve holistic growth of students, open electives are on offer from arts, science and engineering disciplines. Interdisciplinary Minor courses are offered to help students achieve their goal of employability or entrepreneurship.

Research Center offers Ph.D. program which addresses current societal and industrial needs through research and development in chemical engineering. Department has all the necessary infrastructure to carry out effective academic as well as sustainable applied research.

CIVIL ENGINEERING

- **B. Tech. (Civil Engineering) - 4 years full-time program | AICTE approved | 120 Intake**
- **M. Tech (Structural Engineering) - 2 years full-time program | AICTE approved | 18 Intake**
- **Research Center in Civil Engineering offering Ph.D program**

As a mother of all engineering studies, the aim of the program is to expose the students to the horizontal and vertical expanse of the discipline. The graduates become aware of the responsibility to contribute to the growing need for sustainable and smart infrastructure in rural and urban scales, in terms of planning, designing, construction, audit, management and retrofitting. In that context, the student is presented with skills of mapping, sampling, quality and material testing, project execution, soft skills and management.

The Master's Degree program in Structural Engineering trains the students in theoretical concepts, mathematical modelling of systems and proficiency in state-of-art software. The Department offers a minor in Geoinformatics (covering basic Surveying, Remote Sensing, GPS and GIS), which is going to expand students' awareness towards industry-standard surveying and mapping techniques, spatial databases, spatial data analytics, spatial planning and decision making.

COMPUTER SCIENCE AND ENGINEERING

- **B. Tech. (Computer Science and Engineering)**
 - 4 years full-time program | AICTE approved | 180 Intake
- **M. Tech (Computer Science and Engineering - Digital Transformation)**
 - 2 years full-time program | AICTE approved | 18 Intake
- **Research Center in Computer Science & Engineering offering Ph.D program**

The program primarily focuses on Programming Logic Development and promote students to learn cutting-edge technologies like Artificial Intelligence, Augmented Reality, Virtual Reality, Quantum Computing, Internet of Things, Neuroscience, Autonomous things, Edge computing etc. A rational blend of basic and latest technology is offered to the students for increasing employability.

Industry mentored Master Program aims to focus on the impact of emerging technologies on business transformation by imparting skills in competencies around digital transformation and technologies via industry case studies & capstone project. Department has state of art resources which will suit for advanced research in computer science & engineering.

ELECTRICAL AND COMPUTER ENGINEERING

- **B. Tech.(Electrical and Computer Engineering)**
 - 4 years full-time program | AICTE approved | 60 Intake
- **M. Tech (Electrical Power Systems) - 2 years full-time program | AICTE approved | 18 Intake**

The Bachelor of Technology in Electrical & Computer Engineering degree program focus on developing student's Technical and Professional Skills. Throughout the program, the key technical aspects of electrical engineering are highlighted giving importance to core electrical engineering and multidisciplinary courses for the multidimensional development of the student. The student's get employment opportunities in Government and Private Energy Sectors, Automobile & IT Industries and other futuristic fields of the global economy.

The Master of Technology Program gives ample opportunity to learn advanced skill sets of Electrical Power System Engineering. The program helps students in learning emerging technologies in the field of power system engineering and the latest power system simulation tools. The professional trainings, seminars, industry case studies & capstone project helps students in developing excellent research approach and placement opportunities.

ELECTRONICS AND COMPUTER ENGINEERING

- **B. Tech. (Electronics and Computer Engineering)**
 - 4 years full-time program | AICTE approved | 120 Intake
- **M. Tech (VLSI and Embedded Systems) - 2 years full-time program | AICTE approved | 18 Intake**
- **Research Center in Electronics and Telecommunication Engineering offering Ph.D program**

Throughout the Bachelor of Technology in Electronics and Computer Engineering degree program the key technical aspects of E&C Engineering are highlighted giving importance to core Electronics Engineering and multidisciplinary courses for multidimensional development of the student. Students studying this course will work with electronic devices, circuits, communication equipment like transmitter, receiver, integrated circuits etc. The field also deals with basic electronics, analog and digital transmissions and reception of data, microprocessors, satellite communication, microwave engineering, antennae and wave progression.

The Master of Technology Program gives ample opportunity to learn advanced skill sets and helps students in learning emerging technologies of VLSI and Embedded Systems Engineering. The professional trainings, seminars, industry case studies & capstone project helps students in developing excellent research approach and placement opportunities. Minors and Honours Degree in advanced fields of E&TC Engineering are also offered.



MECHANICAL ENGINEERING

- **B. Tech. (Mechanical Engineering) - 4 years full-time program | AICTE approved | 120 Intake**
- **M. Tech (Mechanical Engineering) - 2 years full-time program | AICTE approved | 18 Intake**
- **Research Center in Mechanical Engineering offering Ph.D program**

The program offers courses in emerging areas and cutting-edge technologies like Robotics and Industrial Automation, Additive Manufacturing (3D Printing), Pneumatics and Hydraulics, Industry 4.0, Artificial Intelligence, Augmented and Virtual Reality, Supply Chain Management, Smart Manufacturing etc. Academic delivery of these courses is exercised by experienced faculty with application orientation. Innovative learning initiatives are equipping students with problem-solving skills to explore career opportunities in various industrial sectors.

Mechanical Engineering is one of the comprehensive disciplines that offer a platform for a great deal of interdisciplinary work. Central Workshop, Innovation Incubation & Research Center (IIRC), Incubation Center for Vehicle Development and future-ready laboratories contribute to challenging the mental map. Our graduates apply knowledge and skills of material, design and manufacturing to the continuous development of new products and processes.

MASTER OF COMPUTER APPLICATIONS

- **MCA - 2 years full-time PG program | AICTE approved | 60 Intake**
- **Research Center in Computer Applications offering Ph.D program**

MCA program is uniquely designed to increase employability and to prepare students to work in a multi-disciplinary work environment. In addition to core courses, the student can opt for track based courses, open electives from different streams of MGM University.

Various applications on different platform make students more competent and industry-ready. However, students with research aptitude are given research-based projects involving real-life problems. Department also takes care of the personality development of student along with aptitude and technical skills for overall development. Choice-based credit system offers wide-ranging choice for students to opt for courses based on their career goals.

MINORS

JNEC allows students to pursue a range of supplemental courses either **to explore personal interests or gain domain-specific proficiency to enhance their career opportunities**. It certainly looks impressive on their resume that suits the most for the latest trends in the industry. **The variety of minor programs, that we offer, helps to explore personal interests and further to improve employment opportunities.**

- Data Science (Branch Specific)
- Data Science (IT)
- Artificial Intelligence and Machine Learning
- Full Stack Web Development
- Design Thinking
- Remote Sensing and GIS
- Additive Manufacturing Technology
- Mechatronics and Industry 4.0
- Product Design and Development
- Industrial Engineering and Supply Chain Management
- Automotive Technology
- Entrepreneurship
- Biotechnology
- Internet of Things(IoT)
- Industry 4.0
- Electronics Engineering
- Renewable Energy Systems
- Electric Vehicles
- Smart Grid and Renewable Energy
- Electrical Engineering

Track based Courses (MCA)

- **Track 1: Cloud Computing** - It covers cloud computing essentials, Cloud security & migration, Cloud services, DevOps
- **Track 2: Data Science** - It covers machine learning, data science and visualization, Big data analytics, network security and malware detection
- **Track 3: Cyber Security**- It covers data encryption, digital forensics, ethical hacking and intrusion detection
- **Track 4: Artificial Intelligence** - It covers Natural language processing, machine learning using python, soft computing and quantum computing

HONOURS DEGREE

Studying undergraduate program in combination with Honors permits to improve skills and knowledge, under the guidance of an experienced staff member, in your selected area. An Honors is a degree that provides an opportunity to explore one's passion and expertise before committing to any Master Degree or further higher education. The academic umbrella of JNEC offers a plethora of such programs.

COMPUTER SCIENCE AND ENGINEERING

- Digital Transformation
- Artificial intelligence
- Cyber Security
- Data Science

INFORMATION TECHNOLOGY

- Data Science
- Blockchain
- AI and Robotics

MECHANICAL ENGINEERING

- Mechanical Engineering
- Robotics

ELECTRONICS AND COMPUTER ENGINEERING

- VLSI and Embedded Systems Design
- Artificial Intelligence and Machine Learning
- Data Science

ELECTRICAL AND COMPUTER ENGINEERING

- Power System Simulations
- Sensors & Robotics
- Electrical Vehicle

Let's stop looking for the light and become one instead!

This is what one experiences in JNEC with the help of an intellectual basket of courses along with participative methodology through our Educational Ecosystem.

We promote students to learn lifelong skills and an ability to apply in multiple ways with the help of our Future Ready Network.

INNOVATION INCUBATION AND RESEARCH CENTER (IIRC)

Innovation Incubation and Research Center, being the promoter of research attitude with entrepreneurship approach, is a gateway to infinite prospects for the student to take their knowledge to the next level and acquire industry oriented skills.

The main objectives of this center are to provide numerous opportunities to the students by working on the latest industrial software, equipment and upgrade their knowledge as per their interest to work on live industry projects and provide solutions to the industries. The key facilities of the center include the Advance Industrial Automation, Mechatronics, Industrial Fluid Power, Industry 4.0, E-Vehicle and Computer Integrated Manufacturing lab in Association with Christiani Sharpline, Germany and SSIGMA, Pune.

ENTREPRENEURSHIP AND STARTUP CELL

MGM University provides a platform for youngsters to enhance vibrant ideas who have the potential to scale up their assignments, projects and ultimately businesses. Facilitating Startups means helping new businesses that are intended to grow large beyond the solo founder.

The MGM University has constituted Engineering, Agriculture, Arts, Healthcare, Environmental and rural Entrepreneurship Development Cell with an objective to inculcate entrepreneurship among students. University would facilitate and sharpen the ideas, innovative activities that are valuable as well as useful to the society and offers incubation for the development of products, processes and services.

TRAINING AND PLACEMENT CELL

T&P Cell aims to:

- Bridge the gap between industrial needs and student skills and provide the best possible challenging career opportunities to students for exploring their capabilities
- Develop the students through continuous training, counselling and enhancing their employability skills by inculcating the right attitude to meet corporate expectations.

ALUMNI

Anubandh, annual alumni get together, truly seeks to explore myriad possibilities arising out of the synergy between alumni, current students and their alma mater

MGMU HOSTELS

MGM University, over the past four decades, has established a culture of a safe and secured environment at its hostels, being governed by an administrative body that includes the warden, the assistant warden etc. The hostels are located within the campus & are at walkable distances. Each of the four hostels viz. Baa hostel, Ganga hostel, Indrayani hostel and Bapu hostel offers a variety of accommodation options viz. single, two, three and four-bed sharing rooms having options like AC/Non AC rooms, with attached/ shared toilets. The students have the choice to select as per their suitability. The plethora of committees and subcommittees, disciplinary policies help to reinforce the safe and healthy environment of each hostel campus. The overall human resources, infrastructure and ambience are such that any fresher gets easily absorbed into the atmosphere.

Fee Structure

The Fees Structure for all UG and PG Programs of Jawaharlal Nehru Engineering College, MGM University, Aurangabad for Academic Year 2021-22 is as Follows:

Sr. No.	Particulars	Amount	Remarks
1.	Tuition Fees	Rs. 1,50,000/-	Per Year
2.	Eligibility Fees	Rs. 5,000/-	One Time
3.	Examination Fees	Rs. 5,000/-	Per Year
4.	University Sports Fees	Rs. 1,000/-	Per Year
5.	UMIS	Rs. 2,500/-	One Time
6.	Student Aid & Insurance	Rs. 500/-	One Time

The Fee is to be paid by Digital Payment mode only through MGM University ERP.

Scholarships Available For Deserving Students of MGMU for Academic Year 2021-2022

For details about Terms & Conditions, please visit MGM University Website

- Merit Scholarships
- Sports/Athletics Merit Scholarship
- Scholarships to the Wards of Martyrs
- Hon'ble Chancellor's Scholarships
- Alumni Scholarship
- Post-Graduation Internship
- Ph. D. Research Assistant Fellowship
- Scholarships to the wards of MGM employees
- COVID19 Scholarships

EVENTS @ JNEC



- **ANKUR 2.1** - Engineering exploration project exhibition
- **Razzmatazz** - Annual Cultural Event
- **TEDx JNEC** - Independently organized and hosted unique annual TEDx conference
- **Swayambhu** - Annual multidisciplinary national level technical festival
- **NASA** - Participation for National Association of Students of Architecture Conventions at National and Zonal level
- **National Science Day** - Annual Celebration and promotion of scientific ideas of first year students

TOP RECRUITERS



GLOBAL TECHNOLOGY COLLABORATIONS

JNEC has global technology collaborations for lab setup, projects, internships and startups



India's First Technology Excellence Center by MSC Software, USA



BMW Lab under Skill Next Program of BMW India



Flow Tech Measurement Lab by Endress + Hauser



Tech Mahindra's Makers Lab for Learning with Innovation



MSME Innovation Program Associate for Industry Projects



Mechatronics & Industry 4.0 Training Center, Germany

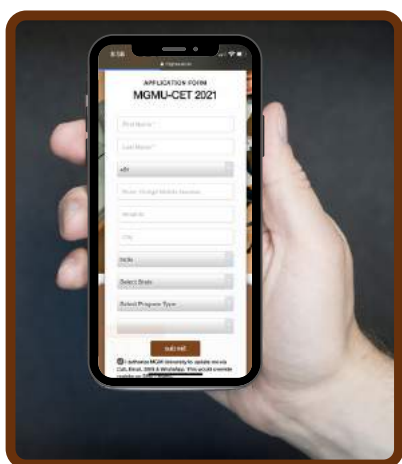
ADMISSION PROCESS (ONLINE)

APPLICATION FOR

MGMU-CET 2021

Entrance Exams for MGM University
Programs - UG & PG

- 1** Apply on www.mgm.ac.in > mgmu.ac.in/admissions/MGMU-CET.php obtain unique login details for Entrance Exam related communications

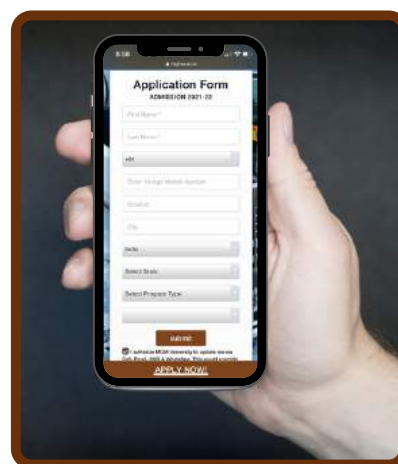


- 2** Choose Program and Pay the Entrance Exam Fee Rs.900
- 3** Await Entrance Exam schedule and other intimations

APPLICATION FOR

**UG FIRST YEAR OR
DIRECT SECOND YEAR OR
PG PROGRAMS**

- 1** Apply on www.mgm.ac.in > mgmu.ac.in/admissions/JNEC.php follow eligibility criteria and other guidelines > pay Application Fee Rs.1000



- 2** Check your name in Merit List on www.jnec.org
- 3** Join online meet for Counseling Round
- 4** Confirm Program of your choice
- 5** Proceed to pay the Fees online
- 6** Submit all necessary original documents
- 7** Upload the fee payment receipt
- 8** Fill up and upload anti-ragging affidavit (student & parent) & University eligibility form
- 9** Collect admission confirmation report through your login



APPLY NOW

www.jnec.org | www.mgm.ac.in



MGM Campus, N-6, CIDCO, Aurangabad - 431003, Maharashtra, India

Contact:

B. Tech. (U. G.): +91 9657715356

B. Tech. (Direct Second Year): +91 9657170664

B. Arch. /M. Arch.: +91 7058313020

M. Tech.: +91 9404494299

MCA: +91 8275247705