JAWAHARLAL NEHRU ENGINEERING COLLEGE

JNEC HAS BEEN RANKED 2ND IN MAHARASHTRA AND 5TH IN INDIA AMONGST THE PRIVATE ENGINEERING COLLEGES {AISEET 2020}
MGM UNIVERSITY

MGM University in Aurangabad, established by the revered Mahatma Gandhi Mission Trust, a pioneer with 37 years of excellence in education, research and service, is now a self-financed State University, approved by Government of Maharashtra with the passing of MGM University Act 2019 by Maharashtra Legislative Assembly and Legislative Council. It has the 2(f) status granted by the University Grants Commission (UGC) of India.

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 ever-inspiring force of MGM University.

It is founded on the Gandhian belief that education is for all – and at its core is character-building and getting students future-ready.

The constituent institutions of MGM University, each of them with a great track record of academic excellence and industry placements, are Jawaharlal Nehru Engineering College, Institute of Management and Research, Institute of Biosciences and Technology, Dr. G. Y. Pathrikar College of Computer Science & IT, College of Journalism & Mass Communication, Institute of Hotel Management, Institute of Fashion Design, College of Fine Arts, Institute of Social Science, Institute of Indian and Foreign Languages, and Mahagami Gurukul of Performing Arts.

MGM University assures you of an exhilarating campus life - a safe, vibrant, green campus - with an experiential teaching methodology adopted for all the programs to get you ready for the new world of careers and entrepreneurial opportunities.
Aurangabad, the tourism capital of Maharashtra—beautifully enveloped by rich heritage, art and architecture has witnessed the glorious path of history and culture. It has been the preferred tourism destination on the world map.

-Shown is 'Kailasa', Cave No-16 - Ellora Caves
JNEC – FOUR DECADES OF ACADEMIC EXCELLENCE IN TECHNOLOGY AND DESIGN

Established in 1983 Jawaharlal Nehru Engineering College is the constituent college of MGM University, Aurangabad. It has in total 24 academic programs in technology and architecture along with number of interdisciplinary programs. The institute offers programs like B. Tech., B. Arch., M. Arch, MCA, M. Tech., and Ph.D. approved by AICTE and COA. It is recognized at national level as a leader in the field of technical education and research. It is widely known for the excellence of its faculty and the exceptional talent of students graduating from its undergraduate and postgraduate programs. Over the last four decades, more than 15,000 engineers and architects have graduated from the institute. It is gaining fame for the generous investments done in research of diverse areas of science and technology.

Recently JNEC has been ranked 2nd in Maharashtra and 5th in India amongst the private engineering colleges (by AISEET 2019). It is the first college of the region to obtain NBA, NAAC A Grade accreditation with ISO 9001:2015, 14001:2015 Certification. JNEC has been awarded ‘Best Examination Center’ and ‘Best NSS cell’.

The institute has made its presence felt in the global arena for excellent engineering education, innovative practices and discipline with the total annual strength of 3271 students. Remarkable amenities, futuristic laboratories of different programs, 186 seasoned faculty amongst whom 36 are PhD holders, congenial atmosphere and diligent academic pursuit makes JNEC, an institute with the difference. The placement record is whopping with more than 100 companies for the year 2019-2020 bringing in over 300+ placement offers. The true essence of outcome-based education, research aptitude with application of profession for the society is nurtured during the academic years of degree.

The students of JNEC have two fold advantage of being located at the tourism capital of Maharashtra while enjoying the safe, secure and serene campus located at Aurangabad which is gaining importance as a prosperous Industrial city. JNEC has set a culture to let students deal with civic issues of Aurangabad city and adding values to the socio-cultural prospects of the city. The students residing within the campus are accommodated in four hostels with in-house dining and excellent amenities for sports and other recreational facilities.
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 mind-set and human values amongst the students.

CHAIRMAN’S MESSAGE
Looking back at the passed years, my mind is flooded with memories. Memories of people, memories of events, memories of immense pleasure for accomplishments, memories of opportunities missed …!

Today MGM has spread her wings to go global. More than 3, 00,000 alumni, of almost all faculties, passed out from MGM are engaged in great task of building nation. Thousands are working abroad to serve the borderless world.

In journey of last 37 years MGM has reached from an Institute to University level and in 70 institutes more than a 1,00,000 students are shaping their future.

Had the helping hand of Hon. Sharadrao Pawar not been there, our dream would have never seen the light of the day. I cannot name all, but I am aware that thousands of visible and invisible hands, brains and hearts are working with commitment to fulfill the dream of Mahatma Gandhi Mission.

It is said, the destiny of a nation is forged in her class rooms. Dedicated teachers do this task. We are privileged to have a team of committed faculty who has put in their lives for cause of Mahatma Gandhi Mission. I look at them with hope and belief to meet challenges of the future. In this span of time, we have come a long way, now our eyes are tuck to the dream of Mahatma. His lifelong dream was “Wipe every tear from every eye” He lived and died for it. Yet the task is not complete. His dream remained unfulfilled. With whatever little strength we have along with you as our futuristic hope, Mahatma Gandhi Mission is committed to fulfill his dream of a better world.

Shri. Kamal Kishor Kadam
My Dear friends,

Higher Education is a process intended to bring about transformation in your perspective and is about giving you new thoughts, new visions and new ambitions with scientific approach. With Liberalization and Globalization, the India corporate sectors felt the need to reposition itself, quickly in order to effectively respond to emerging competition and also exploit the opportunities. The new challenges will be surmounted with our ability and thinking futuristic and redefining our action plan for today. To cater to this requirement, we aim to live up to our mission to groom young future engineers to be complete, value-driven human beings and competent professionals with global outlook and capable of functioning in cross functional teams, to balance scientific principles with practical applications in technology, design – development & in all streams of learning. Therefore, the higher education institutions (HEIs) in the present world are concentrating now on Outcome Based Education (OBE).

I believe that the learning experience at MGM University is a golden era of your life and while cherishing the same you should ensure that make the optimum use of available opportunities, nurturing your individual personalities to the zenith.

We are proud to announce that, the MGM University shall be with practical, Industry-focused and future-ready higher education and attracts talented students from across all states of India and abroad focusing on the developing world with a motto ‘Empowering Generations. Empowering Nations.’ I hope that, students, teachers & parents from India & across the world will support this new academic venture of the Mahatma Gandhi Mission Trust.

Shri. Ankush Kadam

Dear Students,

We are facing a truly unprecedented situation, where the global corona virus pandemic is adversely affecting our lives; but together we can surely fight against it by innovative approaches.

MGM Group of Institutions has been recognized by the government as a private university due to its quest of imparting quality education since four decades. The present scenario in higher education is all about innovation and transformation in programs, teaching methods, curriculums, infrastructure as well as the learning process where there is more openness having many choices (For instance – An engineering student can learn mass media, photography, etc. or even an arts students can learn Machine Learning, Artificial Intelligence). Hence, at MGM University, we have especially designed Interdisciplinary, Multi-disciplinary and Trans-disciplinary curriculums for an all-rounder exposure to students. Our newly launched programs are according to the future trends of education and will create diverse opportunities for employment. We have developed student-friendly ambience to extract the best out of the students.

Esteemed in welcoming you all to join our MGM Team in the development process!

Dr. Rajan Welukar
Dear young friends,

Humanity across the globe is passing through a deeply troubled time due to the outbreak of Corona virus (Covid-19). Whenever there has been a crisis of global scale, a health calamity like this, humans have proved their abilities and mettle to cope successfully with a positive spirit. In the hour of severe threats to the life of millions we have observed how human intelligentsia has come up with innovative solutions such as portable ventilators or low cost and fast testing kits and vaccine development for future prevention from such a pandemic.

Bright, young minds have to draw on quality higher education in nurturing and reshaping themselves. Underpinning today’s specialized education must be the philosophy of Mahatma Gandhi, the father of Indian and torchbearer of selfless struggle.

Friends, we are living in a “Digital Age” consequently, a period of disruptive innovations in STEM – Science, Technology, Engineering and Mathematics. The industries and businesses of present times are moving towards Industrial Revolution 4.0. In response to that we need to drive ourselves to future ready engineering education supported by travelling the path of high potential dimensions.

JNEC stands tall and is ranked among the top 10 best private engineering colleges in India (AISEET 2020) and continues to be a driving force of future-ready engineering education.

We welcome you to MGMU-JNEC.

Dr. Sudhir Gavhane

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Dear Students

My Best wishes to the promising professionals, who are aspiring for a career in Engineering and other disciplines. We see a hope in you!

The whole society is facing new challenge set by Covid-19 and it has given a very high task for the Scientists and Engineers of the whole world. In this background, we are proud to say that the role of Indian Medicos, Engineers, Administrators who are working courageously is quite appreciable and this pandemic has become a challenge for budding engineers to apply knowledge of science and technology towards rejuvenation of mankind.

Following the footsteps of Jawaharlal Nehru, the first Prime Minister of India, I am sure you will also strive for liberty, equality and prosperity for strongest India. I wish your four years stay in JNEC with its technical excellence transform yourself into a vibrant technocrat with global reach. Many of your seniors have achieved excellence in their fields, which will surely keep you inspiring and motivated. Wish you more of it.

Shri. Pratap Borade
Dear students,

JNEC welcomes you to carve your dream with excellence in the prestigious MGM University. Technical education is indeed a key of success in this competitive era, where various avenues of professional career may begin. JNEC is driven by a shared purpose, to make a better world through education, research and innovation. Engraving the multifaceted technical expertise with human values is the well-known motto of JNEC, and this doesn’t need any introduction here or overseas.

At JNEC, our battery of mentors believes in training the human senses, mind, behavior and skills in constructive manner so as to impart it in social benefit. Since last four decades of our standing in education field, it remains our endeavor to create a platform with the state of art facilities for grooming out technical skills among the students. Various co-curricular, extra-curricular expeditions support the active learning on the grounds of outcome based education.

We strived for excellence in education in the interiors of Maharashtra in past decades, became pioneering efforts in engineering education for the distant as well as elite segments of the society. We have the dedication for nourishing physical, intellectual, social and spiritual aspects of the students along with the formal training in engineering and architecture.

I hope your dream comes true certainly with this effective and passionate learning philosophy of JNEC.

Dr. Harirang Shinde

PRINCIPAL’S MESSAGE

Education to cultivate the whole personality. All-round fostering of the human being is the hope for the future. Mahatma Gandhi’s system of total personality cultivation called *Nayi Taleem* constitutes the foundation for this development.
We Respect Values

As an education society, JNEC subscribes to a set of values: We Respect. These are the values of Honesty, Responsibility, Equality, Sustainability, Empathy, Belongingness, and Peace. At all times, we teach and model these values and support our students in doing the same. We encourage our educators to honor and recognize these values in our students, at all times with ongoing dialogue, discussions, and reinforcement.

Honesty
- being honest and ethical with thoughts and actions

Responsibility
- being accountable for thoughts, actions, and deeds

Equality
- being equal in status, rights, and opportunities

Sustainability
- ensuring to live a life that produces water, energy, food, and air

Empathy
- being sensitive and responsive towards humankind, art, culture, and eco-system

Belongingness
- being part of a society in search of common goals and respecting each other

Peace
- contributing to a state of coexisting in perfect harmony and freedom

These distinct behaviours form the backbone for all that JNEC teaches. Why we follow Mahatma and practice sustainability because this represents our commitment to growth - in healthy living things like ourselves, our students, our community, our environment, and our worlds. This weaving of skill-set directly refers to our learning and living ambitions and are endorsed by our purpose that we follow:

‘Look at nature. She is continuously in action, never rests for a single moment, yet she is mute.’

- Mahatma Gandhi

JNEC Skill Set Weaving

These distinct behaviours form the backbone for all that JNEC teaches. Why we follow Mahatma and practice sustainability because this represents our commitment to growth- in healthy living things like ourselves, our students, our community, our environment and our worlds. This weaving of skill-set directly refers to our learning and living ambitions and are endorsed by our purpose that we follow:

- Be Honest
- Go Out of the Box
- Be curious
- Ask big Questions
- Be a Leader, model positive attitude
- Put knowledge to action
- Take risk with responsibility
- Be receptive and adaptive to Change
- Deal positively to unknown situations
- Accept and Learn from failure

- Go in-depth
- Ask Why
- Analyze and Evaluate
- Do Interpret
- Understand and appreciate the lifelong passion for learning
- Be aware of surroundings & impact on the community
- Practice united we stand divided we fall
- Find yourself in the whole & share responsibility towards the goal

- Go Part to Whole
- Understand the complete picture
- Recognize how human and natural systems interact and impact each other
- Process, Organize and coherently express ideas
- Listen patiently
- Understand the purpose and seeker
- Interpret and express ideas skilfully
- Identify the problem
- Apply Logic and innovation
- Plan and Prioritize
- Manage Resources and Time
WHY IS JNEC UNIQUE?

- Eight UG courses offered in Engineering and Architecture
- Eight PG courses and Eight research centres
- 36 Ph. D. faculty and 11 Ph. D. Guides
- Excellent placement records
- Strong research culture
- Global network of 15000+ alumni
- Best eco-friendly campus with green ambience
- First institute of engineering observing best male and female ratio according to 'India Today Survey'
- 30+ MOUs with eminent industries
- Association with eminent international and national technical institutes
- Collaboration with local and national technical institutes
- Tata Technology’s Ready Engineering program
- Sir M. Vishveshwarya Engineering Exploration Lab
- 15 student chapters of professional bodies
- 14 hobby clubs for nurturing talents
- TEDx JNEC - Pioneer TEDx event in Marathwada region
- Internal Quality Assurance Cell (IQAC)
- Industry oriented Curriculum
- MGM’s APJ Abdul Kalam Astrospace Science Center and Club
- Weather Station
- JNEC Alumni Entrepreneurs’ Club
- Industry collaborations such as JNEC-GIZ, MASSIA, CMIA etc

MGM is founded on the Gandhian belief that education is for all and at its core is character building and getting students future-ready.

ACADEMIC ECOSYSTEM

JNEC Faculty, with their own academic credentials, performance and learning environment forms the diversified academic ecosystem that support and remain accessible to students throughout the learning journey. At first year level, a group of students are assigned a faculty guardian who help students to translate their academic interests into an appropriate course of study by suggesting general guidance related to academics, internships, higher studies, and career planning.

Our faculty has maintained the façade of JNEC by providing guidance on College and University resources supporting students’ goals and challenges, learning initiatives, diversity in programs, counseling and psychological Services. Institution’s healthy atmosphere, well defined employee welfare policies, opportunities of learning and growth has played a vital role in retaining the faculty members. The highest retention rate was observed during last 10 years. Prof. V. N. Tawde recipient of Lifetime Achievement Award, by MASA, for his contribution towards Architectural education and many such others have been part of the glorious path of JNEC. Dr. Arvind Chel, an alumnus of IIT Bombay and IIT Delhi and recipient of European Union Scholarship for completing Post Doctorate at Ghent University, Belgium, has to his credit five patents under consideration. Dr. Vijaya Musande, Professor Computer Science & Engineering, an initiator of JNEC’s association with Indian Institute of Remote Sensing (IIRS), Research institution in Dehradun, Uttarakhand is recipient of ‘Best HOD of the Year” award from CSI TechNext India 2019. Career Guru of the Month awardee (by Aspiring Minds, 2018) Dr. P Kaur is also a recipient of Best TPO of the Year award from CSI TechNext India 2019. Dr. S. C. Tamane recipient of ‘Best HOD of the Year” award from CSI TechNext India 2019, is an author and editor. Her edited book on “Big Data Analytics and Security concerns for Smart and Connected Cities” made it to Book Authority’s best Big Data books of all time.

The stars are most clearly visible at the darkest time- this is so rightly applicable to our academic heroes who are constantly striving to show light to our students in this pandemic situation. Prof. Sunil Salvi, author of six books on Engineering Graphics and Automobile, received special appreciation from YouTube for his contribution in engaging students in this tough time of Lockdown.
# SUMMARY OF PROGRAMS OFFERED

## UNDERGRADUATE

### B. TECH.

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Intake</th>
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<tbody>
<tr>
<td>Chemical Engineering</td>
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<tr>
<td>Information Technology</td>
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<tr>
<td>Computer Science and Engineering</td>
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<tr>
<td>Mechanical Engineering</td>
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<tr>
<td>Civil Engineering</td>
<td>120</td>
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<tr>
<td>Electronics and Telecommunication</td>
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<tr>
<td>Engineering</td>
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<tr>
<td>Electrical Engineering</td>
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### B. ARCH.

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<th>Program Name</th>
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<tbody>
<tr>
<td>Architecture</td>
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**Total Intake**: 710

## POSTGRADUATE

### M. TECH.

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<th>Program Name</th>
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<tr>
<td>Computer Science and Engineering</td>
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</tr>
<tr>
<td>Mechanical Engineering</td>
<td>18</td>
</tr>
<tr>
<td>Structural Engineering</td>
<td>18</td>
</tr>
<tr>
<td>VLSI and Embedded Systems</td>
<td>18</td>
</tr>
<tr>
<td>Electrical Power System</td>
<td>18</td>
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### M. ARCH.

<table>
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<tbody>
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<tr>
<td>Environmental Architecture</td>
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### M.C.A.

<table>
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<th>Program Name</th>
<th>Intake</th>
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<td>Master of Computer Applications</td>
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</table>

**Total Intake**: 190

## DOCTORAL RESEARCH DEGREE

### Ph. D.

- Mechanical Engineering
- Chemical Engineering
- Civil Engineering
- E&TC Engineering
- Computer Science and Engineering
- Environmental Engineering
- Environmental Science
- Applied Science
B. Tech in Chemical Engineering is aligned with All India Council for Technical Education (AICTE) and is globally benchmarked. The total credits students need to complete are around 160 and are completed in 4 academic years. One academic year is divided into Two Semesters. Formative and summative assessment is carried out in every semester as continuous and comprehensive assessment (CCA) based on evaluation rubrics. The Quality is assessed by the grading system. Curriculum contains: Basic Science Courses, Engineering Science Courses, Professional Core Courses, Professional Core Electives, Minor Electives, Open Electives, MOOC Courses, Social Science and Humanities Courses, Internship, Mini-project, Major Project, Six months In-Plant Training/ Internship in Chemical Industry in the Eighth Semester.

The latest and adequate experimental equipment set-ups in all laboratories are at par with well-known institutes in India and abroad. We provide students not just an academic learning but also activity-based learning through design thinking process. The tie-up with Central Institute of Plastics Engineering and Technology (CIPET), Aurangabad and with Bhabha Atomic Research Centre (BARC) reinforces our creative learning.
UG PROGRAM
ELECTRICAL ENGINEERING

B. Tech in Electrical Engineering is approved by All India Council for Technical Education and is of global standard. The total credits students need to complete are 160 and are usually completed in four academic years including six months industrial internship in the eighth semester. One academic year is divided in two semesters and assessment is carried out at the end of every semester using a grading system.
Detailed four year curriculum contents include Basic Science courses, Engineering science courses, professional core courses, professional elective courses as per current trends in industry, open elective courses, MOOC courses (NPTEL and SWAYAM), mini project, major project, industrial internship, social sciences and humanities courses. Multi Disciplinary electives like Embedded Systems, Artificial Intelligence, Internet of Things and Mechatronics are offered. Curriculum also includes skill development courses such as Industrial Automation, Energy Audit, Power Quality Audit and Design of Electrification. Professional body membership by faculty and students like ISTE, IEL, IAENG & IFERP is the unique feature.

PG PROGRAM
ELECTRICAL POWER SYSTEM

M. Tech in Electrical Power System is approved by All India Council for Technical Education and is of international standard. The total credits students need to complete are around 85 and are usually completed in two academic years. One academic year is divided in two semesters and assessment is carried out at the end of every semester using a grading system. In second year students have to complete a project. All GATE qualified students will be eligible for stipend. The program prepares expert engineers with exposures to advancements in Electrical engineering, the present needs of the power generation, transmission & distribution sector.
UG PROGRAM

ELECTRONICS & TELECOMMUNICATIONS ENGINEERING

B. Tech in E & TC is approved by All India Council for Technical Education and prepares the professionals who outstandingly face the current universal challenges of the industry. The total credits students need to complete are 158 and are usually completed in four academic years. One academic year is divided in two semesters and assessment is carried out at the end of every semester including twenty weeks in-plant training in eighth semester, using a grading system.

The program is designed to provide variety of core electronics courses, electives etc. We develop an ability to design, implement and evaluate an electronic based system, process, component, or program to meet design needs, an ability to visualize and work in laboratory and multidisciplinary tasks. Various Seminars, Symposia and Workshops are arranged for students and faculty in addition to IEEE Students’ Chapter making the best feature of the program.

PG PROGRAM

M. Tech in VLSI and Embedded Systems is approved by All India Council for Technical Education and is of international competence. The total credits students need to complete are 68 and must complete in two academic years. One academic year is divided in two semesters. A student undergoes research based learning by carrying out dissertation work in the fourth semester. Students are motivated to publish their research work in peer reviewed national and international journals. The specializations including technologies shaping our world like, Robotics, Industry 4.0, VLSI & Embedded Systems, IOT and more are the special features of our program.
B. Arch program is approved by Council of Architecture and is outstandingly seasoned to produce professional to cater local to global contexts of the profession. The total credits students need to complete are 290 and are usually completed in 5 academic years. One academic year is divided in two semesters and assessment is carried out at the end of every semester including one semester Professional training in IX semester. The Quality is assessed by grading system. We develop sensitive and compassionate architects with skill, integrity and enthusiasm to create the architecture of goodness. Distinguished Senior and professional faculty members, international and national educational tours and Consultancy cell to provide students a professional platform this altogether makes the program unique and outstanding.
PG PROGRAM

M. Arch in General Architecture is approved by Council of Architecture and is of international standards. The total credits students need to complete are 100 and are usually completed in 2 academic years. One academic year is divided in two semesters and assessment is carried out at the end of every semester. The Quality is assessed by grading system. The latest modern teaching aids are established to facilitate intensive, informative & various other interactive teaching-learning processes. Program aims to gratify current trends of market with expert architects with ability to materialize design ideas considering expectations, economy and ethics.

M. Arch in Environmental Architecture is approved by Council of Architecture and is of global competence that focuses to produce experts to cater all areas of built environment. The total credits students need to complete are 100 and are usually completed in 2 academic years. One academic year is divided in two semesters and assessment is carried out at the end of every semester including 45 days In-plant Training in III semester. The Quality is assessed by grading system. The program upgrades the student’s knowledge to understand the relationship between architectural form, materiality and environmental performance. The respective design studio helps to build conscious approach to energy and ecology in built environment. The infrastructure and facilities available along with complete weather station adds the value to learning experience at JNEC.
**UG PROGRAM**

**COMPUTER SCIENCE & ENGINEERING**

B. Tech in Computer Science & Engineering is approved by All India Council for Technical Education and prepares the techno savvy professionals who are trendsetters and exceptionally cater the unparalleled challenges of the industry. The total credits students need to complete are 160 and must complete in 4 academic years. One academic year is divided in two semesters. Continuous and comprehensive assessment (CCA) based on evaluation rubrics comprising formative & summative assessments is carried out during each semester. The program offers a wide range of electives to choose from according to the student’s interest. A rational blend of basic and latest technology is offered to the students for being employable. In the sixth semester student can opt for regular classroom course or Industrial In-plant training. The quality is assessed by grading system. Preparing graduates to work on multidisciplinary platforms associated with their professional position both independently and in a team environment, also for higher education and research in computer science and engineering enabling them to develop systems for society development.

**PG PROGRAM**

M. Tech in Computer Science and Engineering (Digital Transformation) is industry mentored program approved by All India Council for Technical Education and is of international competence. The total credits students need to complete are 75 and must complete in 2 academic years. One academic year is divided in two semesters. In 3rd & 4th Semester, a student will do an internship in industry that include IT domains like Augmented Reality, Virtual Reality Artificial Intelligence, Machine Learning, Big Data, Cloud Computing, Data Analytics, IoT etc. All GATE qualified students will be eligible for stipend. Program primarily focuses on Programming Logic Development by providing strong mathematical foundation. Collaboration with various renowned industries, like Tech Mahindra, to support Blended Learning makes the program outstanding and unique.
UG PROGRAM

CIVIL ENGINEERING

B. Tech in Civil Engineering is approved by All India Council for Technical Education and prepares the professionals who are future ready having vibrant skills to cater the society. The total credits students need to complete are 166 and are usually completed in 4 academic years. One academic year is divided into two semesters and assessment is carried out at the end of every semester including 20 weeks in-plant training in eighth semester. The quality is assessed by grading system. Students are challenged to learn the necessary skills like planning, designing, operating, inspecting, and managing by carrying out survey, plan, analyze, design and build structures with sustainable development. After the completion of this program our students will be very well suited to serve in both industrial and service sector.

PG PROGRAM

STRUCTURAL ENGINEERING

The aim of M. Tech in Structural Engineering is to create independent, inquisitive and industry ready technocrats imbued with human values and to prepare students of the highest quality professional and technical leadership skills to have successful professional career in industry and several other sectors in global economy. The program is uniquely designed to increase the employability and to prepare students to work in a multi-disciplinary work environment.
UG PROGRAM

MECHANICAL ENGINEERING

B. Tech in Mechanical Engineering is a four years program approved by AICTE with sanctioned intake capacity of 120 seats. It is intended to equip the graduate student with necessary skills that will make them successful engineering practitioners in the fields like Manufacturing, Design, Thermal, CAD/CAM/CAE, Industry 4.0, Smart Automation etc. Mechanical Engineering is considered as the backbone of all technological progress. We at MGM University provide in-depth theoretical aspects of mechanical engineering with the laboratory knowledge through most advanced equipments on which students experiment and innovate. We have a state of art Innovation Incubation and Research Centre -IIRC for the holistic development of the student in the field of Industry 4.0.

The total credits students need to complete are around 160 and are completed in 4 academic years. One academic year is divided into Two Semesters. Formative and summative assessment is carried out in every semester as continuous and comprehensive assessment (CCA) based on evaluation rubrics. The Quality is assessed by the grading system. Curriculum contains Engineering Exploration, Universal Human Values, at First Year Level. Mechatronics, Product Design, Design Thinking, Additive Manufacturing, AI in Manufacturing. Industrial Project is planned in eighth semester.

The unique collaborations like MSC Software, USA and Christiani Sharpline Technical Training Pvt. Ltd. Germany along with Industry sponsored and collaborative skill development laboratories such as Forbes Precision Desk, Endress+Hauser Flowtech Laboratory, BMW engine makes us outstanding.

PG PROGRAM

MECHANICAL ENGINEERING

M. Tech in Mechanical engineering is a two year program approved by AICTE. The total credits students need to complete are around 80 and are completed in two academic years. One academic year is divided into Two Semesters. We have state of art Innovation Incubation and Research centre equipped with Advanced Technological platform. Research facilities are available in various streams of Manufacturing, Thermal, Design and Reliability Engineering etc.

Infrastructure for doing research in the field of Mechatronic system, Industrial Hydraulic & Pneumatic System, Industrial Automation, CAD/CAM/CAE, Robotics, E-Vehicle, Advanced Drone Technology and Autonomous Vehicle ADAS are also available. Curriculum contains Thermal Engineering, Advanced Metal Cutting and Forming Techniques, Supply Chain Management, Advanced Optimization Techniques, Design of Experiments etc. Continuous and comprehensive assessment (CCA) based on evaluation rubrics comprising formative & summative assessments is carried out during each semester. The program offers a wide range of electives to choose from according to the student’s interest. In the third semester student can opt for self study course of Project Management or Intellectual Property Rights along with Dissertation Part I and in fourth semester Dissertation Part II completion along with Research Publication to be done on the dissertation work. All GATE qualified students will be eligible for stipend.
UG PROGRAM

INFORMATION TECHNOLOGY

B. Tech in Information Technology is approved by All India Council for Technical Education and is designed to develop future ready technocrats to deal universal challenges of the profession. The total credits students’ needs to complete B. Tech IT degree are 163 and are usually completed in 4 academic years. One academic year is divided in two semesters and assessment is carried out at the end of every semester. The Quality is assessed by the grading system. Detailed 4-Year (Eight Semesters) Curriculum Contents are Basic Science Courses, Engineering Science Courses Professional Core Courses, Professional Elective Courses as per current trends in industry (Starts from fifth Semester) Open Elective Courses (Starts from fifth Semester), MOOC Courses (NPTEL, SWAYAM), Cooperative Learning, internship- 2 weeks after 4th Semester, Mini-projects (in fourth & fifth Semesters), Major Project (in sixth & seventh Semesters) Internship in IT Industry (in eighth Semester)

The program gives expertise to budding technocrats by imparting technical knowledge and through value-based education highly qualified and experienced faculty members along with well-equipped labs. We develop the students with technical skills, soft skills and professional attitude to excel as competent professionals, entrepreneurs and researchers.

PG PROGRAM

MASTER OF COMPUTER APPLICATIONS

MCA program is approved by All India Council for Technical Education and of universal standards. The faculty of engineering and technology implements a credit based curriculum and grade based evaluation system for four semester full time MCA course. The academic courses are delivered in three semesters. Dissertation work is carried out by students in the fourth semester. Different Track Based courses are included like Cloud Computing, Data Science, Cyber Security and Artificial Intelligence.

Track based, Project based learning, Summer & Winter internship at the end of each semester, AI based research projects, Train & Hire program by DBXento Systems (Pune) are the unique selling points.
JNEC has a plethora of academic programs out of which the higher studies and research thrives among students and faculty. In addition to basics of research number of development projects are lined up to tackle the ‘factual’ problems. Our commitment to merge education with wisdom provides a productive setting to conceive research. We aim to produce the highest quality, significant application oriented engineering and technology research, to transfer technology developed through research and development activities to outside world (Lab-to-Land), to support create Intellectual Property (IP), to help launch start-up companies. Researchers registered in MGM University perform cutting-edge research in a variety of specialized focus areas to provide practical answers to needs of the society.

IIRC- Innovation Incubation and Research Centre- is the flavor added for fostering the overall R&D growth of the institute, through interactions with external agencies, academic institutes and the industry.

**DOCTORAL RESEARCH DEGREE PROGRAMS**

- Mechanical Engineering
- Chemical Engineering
- Civil Engineering
- ECT Engineering
- Computer Science and Engineering
- Environmental Engineering
- Environmental Science and Applied Science
In pursuit of Excellence as a part of JNEC’s Industry-Academia Initiative, Innovation Incubation & Research Centre (IIRC) has been established by the college. To promote research and technical skills which are significant for students’ development, for the first time in Maharashtra, JNEC has come up with the unique state of art infrastructure which will meet the demands of all types of Industries starting from design to Manufacturing and Rapid Prototyping to Industry 4.0. The main objectives of this center is to provide numerous opportunities to the students by working on latest industrial software, equipments 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 includes, the Advance Industrial Automation, Mechatronics, Industrial Fluid Power, Industry 4.0, E-Vehicle and Computer Integrated Manufacturing lab in Association with Christiani Sharpline Technical Training Pvt. Ltd., Germany and SSIGMA, Pune. The center also has Industrial robotics lab of YASKAWA and TAL BRABO robots. Endress+Hauser, Swiss based company, which is a global supplier of operating process and laboratory instrumentation and automation has developed a lab of Process equipments and measurements at JNEC this is another feather added for global exposure and excellence of the students.

First ever in India, MSC Software (USA), the international leader in simulation software and services, in association with SSIGMA has collaborated with JNEC to establish an advanced centre for Reverse Engineering and Rapid Prototyping, Advance Driver Assistance System (ADAS), Unmanned Aerial Vehicle (Drone Lab) and Industry recommended advance simulation software like Adams, Actran, Nastran, Simufact, ImageGenerator, RoadDesigner, OpenDrive, V-TRAFFIC/V-SCENARIO for design, modeling and validation of results. Through their portal MSC software has paved the path to number of job opportunities in their business co-partners.
INNOVATIVE PEDAGOGY

Current engineering problems are no longer restricted to a single core domain with the emergence of Industry 4.0. In matters of agriculture, environment, home and office automation, hotel industry, health etc., there is now an emerging need for personnel with multidisciplinary aptitude as well as domain specializations. For example, developing a IoT enabled tractor for precision agriculture, people from Mechanical Engineering (machines), Civil Engineering (GPS), Electronics Engineering (sensor) and Chemical Engineering would be required. In addition, to process the data acquired in real time, data analytics would be required. Therefore, in this scenario of changing employment it has become imperative to change the way education is delivered to the students.

Sir M. Vishweshwarayya Engineering Exploration Laboratory
JNEC has taken a unique initiative for training the students in a simulated industrial problem-solving scenario, from the very first year of the Engineering curriculum. Known as Sir M. Vishweshwarayya Engineering Exploration Program, the first-year students from different branches are clubbed together to work on various “need statements” targeting various employment domains e.g. home and office automation, environmental monitoring, robotics etc.

In each of the interactive laboratory sessions in the program, three or four faculty members, each from different stream, provide one-to-one mentoring to students in order to achieve solutions for the need statements provided to them. In this process, the students are exposed to the techniques of engineering design thinking, platform based development, data analysis, project management etc. Industry sponsored and collaborated skill development laboratories such as Forbes Precision Desk, Endress+Hauser Flowtech Laboratory; BMW engine (Mechanical), Mahindra Makers’ Laboratory (CSE), IBM centre of excellence (IT), Gill Instruments Embedded Systems Laboratory (E & TC) and the Thinkering Laboratories enhances innovative learning in students.
The JNEC campus’ architectural splendor kindles the imagination and stimulates innovation and creativity. Our value based approach, beautifully cushioned in sustainable & green campus, inspires youth to pursue their passions and make a difference.

**INSTRUCTIONAL FACILITIES**

JNEC is known to have a variety of instructional facilities and teaching aids, which are significant and responsive for teaching learning process. The classrooms and studios are equipped with latest smart features proving them most celebrated space that students appreciate the most. Each department has designated independent research space to promote the research culture. The undergraduate teaching laboratories along with research centers at JNEC are well-equipped with state-of-the-art facilities, furnished with latest equipments, instruments and machinery that reinforce knowledge friendly culture. Conference facilities such as well-equipped, air-conditioned seminar halls and conference rooms help to organize workshops, lectures, conferences, that take place frequently within the campus. The campus has well-furnished five auditoriums with a capacity ranging from 100 to 1000 people. Rukhmini Auditorium, Aryabhatta and Einstein auditorium are the finest examples and most cherished by the students, speakers and visitors etc.
**KNOWLEDGE RESOURCE CENTRE (LIBRARY)**

The Central Library is the heart of JNEC that enhances knowledge and strives to instill thirst for learning among students, enabling them to develop a holistic personality and become a professional who are motivated to make valuable contributions to the society in future.

It is a knowledge hub of inspiring collection of academic resources in the form of books, journals, research papers and electronic journals on a variety of subjects including science, technology, humanities, architecture, planning, urban design, social sciences and environmental management sciences. Inter-Library Loan (ILL) facility to borrow books from other DELNET member libraries across India, access to National Digital Library, MOOC/NPTEL Video Lectures Repository, Digital Library through OPAC(Online Public Access Catalogue) software makes it more resourceful and appreciative. The students can access books and question bank through precisely developed mobile Apps. The video viewing facilities, e-library, group rooms are few of the best features available.

**CENTRAL WORKSHOP**

The Mechanical and Production aspects are an integral part of Engineering. Consequently, the central workshop functions to impart practical exposure & hands on skills among the students of Engineering and Architecture. The workshop has sections like Machine Shop, Fitting Shop, Welding and smithy section, Forging, Foundry, Tin Smithy, Carpentry & Pattern making.

Aurangabad is aspiring potential industrial zone with auto cluster, pharmaceutical, electronics, process industries in its periphery. This sets demand for the engineering support of skilled workmen. The workshop truly satisfies this need. The high academic standards, strict internal evaluation, state-of-the-art infrastructure and the most important vibrant student community make us a favored destination for corporate giants.

**CENTRAL COMPUTING FACILITIES**

The Central Computing infrastructure provides computing & internet facility and support the students in their academic activities. It also administers the campus Data maintenance, ERP record management etc. The centre is equipped with Addressing system installed for special workshops & presentations. The computer nodes & servers are operating in a network configuration as a part of total campus network. The Central Computing center in parallel offers super fast Wi-Fi services in the campus.
Champions are made from something they have deep inside of them—a desire, a dream, a vision.” ~Mahatma Gandhi

The sports facility is an integral part of educational activity. To keep students physically healthy and mentally fit MGM has developed a huge sports complex on the plot area of 25 Acres, having cricket stadium (of 20000 + capacity), Swimming pool complex with Spa, Gymnasiums and Fitness club, Naturopathy Center, Physiotherapy centre, Football ground, Shooting ranges, Badminton Courts, Lawn/Soft Tennis Court. All the staff members of MGM institution can avail the facilities in the sports complex. Numbers of tournaments are being arranged throughout the year along with coaching etc. Events like MGM Olympics, Heritage run are some of the star events of the club, in which not only MGM students but also Aurangabad citizen participate and admire. For more details log on to www.mgmu.ac.in

**Sports Infrastructure**

**Sports In charge**
Mr. Nilesh Harde, 9404488030
Mr. S. G. Zaveri, 9422706484

**Hostels**

The phenomenal hostel life characterizes the life of a student inside the campus. MGM University, over the past four decades, has established a culture of safe and secured environment having equal concern to food and health, cleanliness and hygiene, discipline and success, pleasure and excitement. This altogether has converted the four hostel campuses into the hubs of activity. These four hostels are located at walk-able distances, governed by an administrative body that includes warden, the assistant warden etc. And each hostel offers variety of accommodation options for every student. The overall human resources, infrastructure and ambience are such that any fresher get easily absorbed into the atmosphere. The students’ body is always available to address the problems and suggestions of the hostelites. For more details log on to www.mgmu.ac.in

**Contact**

For Girls Hostel: Mrs. Prerana Dalvi
For Boys Hostel: Mr. S. G. Zaveri
Tel.: 91 (0240) 2481325 Fax: 91 (0240) 6601100
Girls Hostel: Ext.: 3040/3041, Boys Hostel: Tel.: 91 (0240) 2482236 Ext: 529
mgm.hostel@rediffmail.com
**WE AIM FOR 100% PLACEMENTS!**

### Key highlights of Placement Drives at JNEC

- Highest numbers of offers are made to JNEC students during pool campus recruitment drives in Marathwada region.
- Nodal Centre for Wipro NLTH
- TCS has accredited JNEC
- Centre for TCS campus recruitment process in Marathwada.
- Centre for Samsung, HSBC, Bosch, Amazon, Adani and other major campus recruitment drives.
- Academic curriculum is updated frequently as per feedback of Industry. Courses like AI, machine learning, Agile, IoT, Big Data Analytics, Python programming, R tool are part of curriculum.
- Skill based training is provided through short term courses.
- Compulsory for every student to enroll for minimum one skill-based online course offered by Coursera, Udemy, NPTEL- SWAYAM and from other MOOC sources.
- Preparation for general and technical Aptitude test is part of students’ schedule.
- Alumni conduct training sessions on current industry trends like Talend, Blockchain, Full stack developer, Cyber Security.
- Initiatives are being taken to ensure more students qualify through placement process and get selected such as:
  - Career Planning
  - Campus Placement Preparation
  - Aptitude Development Program
  - Coding Hub
  - Skill Development Program

*Assessment Opportunities*  
*Placement Portal*  
*Placement Position*  
*Industry Academia Collaboration*
Co-Curricular Activities

TEDx JNEC

Individually organized and hosted unique annual TEDx conference that provides an opportunity for students to listen and network with eminent achievers in diverse fields such as literature, arts, technology, health, social services and bureaucrats.

Ankur 2.1

Engineering Exploration Project Exhibition- The Engineering Exploration program of JNEC meant to be a platform for providing initiation to the engineering student regarding the aptitude of engineering to be developed through the posing of need statements formed as industry or social problems. 

Ankur – exhibition is an annual activity to encourage creativity in the first year students through universal approaches and showcase the budding talent at a wider platform.

Swayambhu

An Annual multidisciplinary national level technical festival that provides a platform for creative expression of latent skills of students.

International Science Day

This is an annual celebration to promote exchange of ideas, develop multidisciplinary attitude and to get exposed to multifaceted facts of science and technology.
The National Association of Students of Architecture (NASA India) is one of the largest architectural student organizations in the world with student participants from more than two hundred colleges all over India and countries around the world. Students and Faculty of Architecture at JNEC got the opportunity to host 62nd Zonal NASA Convention at Aurangabad. In this zonal convention the entire colleges of zone 3 (Maharashtra) came and interacted with each other through different competitions, trophies, seminars and workshops. Every year students of architecture participate in NASA conventions at Zonal and National level.

Razzmatazz
An Annual cultural event JNEC is known for. It is one of the best events for the student and very well known for students’ organization and participation. The multidimensionality that it carves out through fun, excitement, creativity, unity in diversity, music and dance makes Razzmatazz as the most cherished event of the year.

Student’s Council
The council aims at the versatile development and betterment of students. The students’ council organizes various events which provide a platform for exploring technical, cultural and sports talents in students. The setup is wholly democratic with free and fair elections — the one time of the year that JNECians indulge in politics.

N.S.S. Activities
JNEC has developed a legacy of promoting students to deal civic issues with the essence of social responsibility. Our students under the guidance of faculty generously work towards the society like Cleanliness drives, Dhadak Mohim at Melghat, Blood donation camps, Ganpati making workshop for charity, Visit to Lillian deaf and dumb School, Lecture talk of various issues, Tree plantation, Projects based on social welfare and many more.
Throughout the year University Campus celebrates vibrant activities through which students are exposed to multifaceted opportunities that carves out brighter and flourished façade of them. In parallel they built sensitive approach towards body, mind and spirit.

- Independence Day, Republic day, Gandhi Jayanti
- MGM Foundation day
- Hobby Clubs, Exhibitions
- Sharangdev Mohostav, World Dance Day
- Pottery and Bidri workshops
- International Film Festival
- Kaleidoscope- Khadi Fashion Show
- Yoga Day, MGM Olympics, Heritage Run
- MGM Clean India Activities
Some of the Stalwarts of JNEC Alumni

Dr. Swapneshu Ashok Baser
BE (Chemical), 1987
Founder & Managing Director, Deven Supercritical Pvt. Ltd.
Former Academician at IIT Bombay
Recipient of the NOCIL Award for “Excellence in Design / Development of Process Plant / Equipment”, 1997, from the Indian Institute of Chemical Engineers

Shrikant Shankar Badve
BE (Electronics and Telecommunications), 1987
Founder and Managing Director, Badve Engg Ltd & Group Companies. Recipient of National Award for Entrepreneurship, National Award for Quality Products, both conferred by President, Shri Shankar Dayal Sharma. National Award for Research & Development at the hands of former Prime Minister, Dr. Manmohan Singh.

Ashwani Gupta
BE (Production), 1992
Representative Executive Officer, COO Nissan Motor Co., Ltd.
Former Alliance senior vice president of Renault-Nissan-Mitsubishi (LCV).

Captain Mangal Kakkad
BE (Production), 1987
Directing Staff at National Defence College, New Delhi

Anubandh
Anubandh, an annual alumni get-together, truly seeks to explore myriad possibilities arising out of the synergy between alumni, current students and their alma mater. While reliving the nostalgic moments our alumni, who are our goodwill ambassadors, give us the strength to march further. Anubandh acts as a potent confidence booster for our current students through mentorship, networking with professionally successful alumni.

Meenakshi Bindra
MD, P.E.M, India

Savita Farooqui
CEO, SymSoft Solutions California, USA

Anju Jaswal
MD, Azbil Corporation, Singapore

Anjali Sinha
Program Director
Asia Pacific Client Center Transformation at IBM, New Delhi
**ADMISSION PROCESS**

Tentative Admission Process of First year B.Tech., B.Arch., M.Tech., M.Arch and MCA at MGM University, Aurangabad

1. Eligibility Criteria for B.Tech., B.Arch., M.Tech., M.Arch and MCA is as follows:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Program Name</th>
<th>Eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>B.Tech.</td>
<td>Passed HSC or its equivalent examination and MHT-CET 2020/JEE Main Paper I 2020/PERA CET 2020</td>
</tr>
<tr>
<td>2</td>
<td>B.Arch.</td>
<td>Passed HSC and COA (NATA-2020)/JEE Main Paper II</td>
</tr>
<tr>
<td>4</td>
<td>M.Arch.</td>
<td>Passed or appearing B.Arch. and GATE 2020/MAH-M.ARCH-CET 2020/MGMU-M.Arch. CET 2020/PERA CET 2020</td>
</tr>
<tr>
<td>5</td>
<td>MCA</td>
<td>Passed BCA/B.Sc./B.Com./B.A. with Mathematics/Statistics as one of the subjects (at 10+2 level or at Graduation level examination) and MAH-MCA-CET 2020/MGMU-CET 2020/PERA CET 2020/Equivalent CET 2020</td>
</tr>
</tbody>
</table>

2. Online filling of Application form on [www.mgmu.ac.in](http://www.mgmu.ac.in)

3. Candidate will be communicated login name and password through E-mail and/or SMS for filling other details of Application form.

4. The candidate needs to login for filling details of Application form and pay Application fees online.

5. All supporting documents should be uploaded along with the Application form.

6. Submit the Application form and candidate will get the acknowledgment of Application form.

7. After cutoff date of submission of Application form, merit list will be prepared and displayed on [www.mgmu.ac.in](http://www.mgmu.ac.in).

8. Candidates should check the assigned merit number to them and in case of any grievance can contact on registrar@mgmu.ac.in.

9. First merit list will be generated and displayed along with the detailed counseling schedule on website and Institute admission office for counseling round-I.

10. Confirmation of branch of the candidate’s choice (in case of B.Tech. admission only).


12. Confirmation of payment fees and completion of the process of scanning photographs, signature and thumb impression.

13. Assignment of Roll number to the candidate.

14. Filling and submission of Anti-ragging affidavit (Parent and student) and University eligibility forms.


16. Submission of original documents and generation of its receipt

17. Generation and submission of I-card to the candidate.
MGM students with guidance and mentoring by experienced faculty, learn to widen their perspectives about a changing world. Based on Nayi Taleem with Gandhian values and philosophy, students get an opportunity to enrich their minds, inculcate a societal view, while they acquire a deep subject-area knowledge to advance in life and get ready for emerging careers.