शासकीय अभियांत्रिकी महाविद्यालय, चंद्रपूर Government College of Engineering, Chandrapur



Information Brochure 2020-21

About the Institute

Government College of Engineering, Chandrapur (GCOEC) is spread in 64 acres, was established in 1996, affiliated to Gondwana University, Gadchiroli. This Institute is entirely funded by Government of Maharashtra and approved by AICTE, New Delhi.

Government College of Engneering, Chandrapur offers Six UG and Three PG programs. affiliated to Gondwana University. Gadchiroli. Three UG programs viz Electrical, Mechanical and Instrumentation Engineering are accredited by National Board of Accreditation (NBA). The college is 5 kms away from Bus Stand and Railway Station. The college was selected by Govt. of india for Technical Education Quality Improvement Program (TEQIP) Phase-II. The Institute has recently signed a MoU with Tata Technologies Limited (TTL) to establish a Center for Invention, Innovation, Incubation and Training (CIIIT). The total cost of this CIIIT project is Rs. 263.4 crore under which nine labs are under development by TTL.

Chandrapur is the source of many valuable minerals viz., coal, iron ore, limestone. Tadoba, a national sanctuary, internationally admired tiger forest, enriched with teak and bamboo plants exists in the nearby vicinity. Chandrapur is a prime industrial area, developed by MIDC. Various industries producing cement, steel, power, paper have thrived in the region.



Vision

To excel in technical education having focus on innovative design, entrepreneurship development, enhancing employability rate and developing environment friendly society.





- •To educate and train undergraduate and research students for practicing professionalism, ethical approach, leadership and entrepreneurship ability.
- To nurture conducive environment for learning.
- To develop proficient technocrats catering to the needs of industry, society and environment.
- To enhance rapport with distinguished institutes, industries and alumni for excellence in education, research and consultancy.

From the Principal's Desk

Govt. College of Engineering, Chandrapur (GCOEC) is situated in the city of a super thermal power plant and at the center of the region with abundant black-gold i.e. coal. The region contributes in fulfilling the demand of energy resource as well as power of the country while, GCOEC promises to fulfill quality technical human resource needed for these sectors in India. GCOEC is the only Government Engineering College affiliated to Gondwana University, Gadchiroli. The Institute has Six undergraduate degree programms & Three Post Graduate Programms (One Proposed).

GCOEC is growing in leaps and bounds with the conclusion of latest phase of construction of Liabrary & SC/ST Hostel building.

GCOEC envisions excelling in technical education with a focus on - innovative design, entrepreneurship development, enhancing employability rate and making environment friendly society inclusive of local/tribal needs. The Institute aspires to cultivate integral character, and sound mind of the students. The aim of GCOEC is to develop proficient technocrats catering to the needs of industry, society and environment as well as to enhance rapport with distinguished Institutes, Industries and Alumni for excellence in education, research, and consultancy.

Teaching faculty and non teaching staff of the Institute feel privileged to be a part of dedicated team for imparting quality technical education. They strive to upgrade and update their technical expertise with fervor. The Institute constantly endeavors to develop ethical and professional work culture among the students. The infrastructure such as roads, power has been developed to the necessary extent a lot of developments are on anvil and are being contemplated and proposed. The Institute aims at nurturing the environment of great learning and perfection.

The Institute has recently signed a MoU with Tata Technologies Limited (TTL) to establish a Center for Invention, Innovation, Incubation and Training (CIIIT).

I look forward to your active suggestions, collaboration and contribution in all respects for this technical journey towards perfection. There is no restriction of time and day to call me on 07172-227334 or to reach me at www.gcoec.ac.in



Thank You! **Dr. Sudhir G. Akojwar**Ph.D

UG/PG PROGRAMMES OFFERED

UG PROGRAMMES OFFERED

| SN. | Name of Programme | Year of Establishment | Institute Choice Code | Intake |
|-----|---|--------------------------|--------------------------|--------|
| 1 | Mechanical Engineering (NBA) | 1996 | 400461210 | 60 |
| 2 | Electrical Engineering (NBA) | 1996 | 400429310 | 60 |
| 3 | Instrumentation Engineering (NBA) | 1996 | 400446610 | 30 |
| 4 | Computer Science & Engineering | 2007 | 400424210 | 60 |
| 5 | Civil Engineering | 2010 | 400419110 | 60 |
| 6 | Electronics & Telecommunication Engineering | 2010 | 400437210 | 60 |

PG (M.TECH) PROGRAMMES OFFERED

| SN. | Name of Programme | Year of Establishment | Institute Choice Code | Intake |
|-----|-------------------------------|--------------------------|--------------------------|--------|
| 1 | Electrical Power System | 2019 | 400429210 | 18 |
| 2 | Mechanical Engineering Design | 2019 | 400490410 | 18 |

Ph.D PROGRAMMES OFFERED

| SN. | Name of Programme | Year of Establishment | Institute Choice Code | Intake |
|-----|------------------------|--------------------------|--------------------------|--------|
| 1 | Electrical Engineering | 2014 | - | 10 |
| 2 | Mechanical Engineering | 2020 | - | 10 |

Out of 6 UG Programmes Mechanical Engineering, Electrical Engineering & Instrumentatrion Engineering are NBA, Delhi Accredited.

ADMISSION INTAKE DATA

| • ACADEMIC YEAR | 2017-18 | 2018-19 | 2019-20 |
|-----------------|---------|---------|---------|
| • BOYS | 881 | 876 | 874 |
| • GIRLS | 642 | 588 | 510 |

Civil Engineering

The Department of Civil Engineering is established in the academic year 2010-11. The department has intake of 60, leading to the B.E. degree in Civil Engineering. The aim of the department is to produce creative, wise, well skilled engineers, capable of taking responsibilities on their own to fulfill the requirements of present and future and to bring advancement for a better tomorrow. Today department has setup almost all practical laboratories with modern and major equipments costing 1.07 crores since inception, for conducting practicals, research and consultancy services. The department is third party inspector and consultant for Jalyukta Shivar Yojana of Govt. of Maharashtra. The Department has well experienced and dedicated faculty with a strong commitment to engineering education. The students are encouraged to participate in various co-curricular and extra-curricular activities at the Institute and outside. Students themselves organize such programs

under the auspices of Civil Engineering Students Association (CESA). Department has a lion's share in IRG at Institute level.

Computer Science & Engineering

The Department of Computer Science & Engineering is evolving since 2007 with intake capacity of 60. Department has well experienced and qualified staff. Well equipped software laboratories which focus on Database, Programming, Network. and Project laboratory. The department also actively supports students in organizing various technical events, such as technical paper presentation, competitions on coding, quizzing etc. Many of our students have brought laurels to the department by being rank holders of Gondwana University, Gadchiroli.

Department has latest software packages to match the pace of the fast growing information technology. The department is having Association of Computer Science & Engineering Students (ACSES) under which, student organizes various technical and cultural activities. Students are engaged in various activities related to website maintenance, and laboratory maintenance and various similar activities at departmenta and Institute level.

Electrical Engineering

The Department of Electrical Engineering (EED) is evolving since the inception of the institute in the year 1996 with a intake capacity 60. The department has a fine blend of renowned as well as young and dynamic personalities as faculty. EED is involved in providing quality education at Undergraduate level. Its undergraduet program is accredited by NBA on 17th Oct. 2018 for 3 Years. The Department is strong with Faculty Members with Ph.D. or most of them pursuing Ph.D. in various field. The department is recognized as a Center of Higher Learning & Research (CHLR) in the Gondwana University Gadchiroli. Electrical Engineering Department has recieved Grant-in-Aid of Rs.12 Lacs under scheme Modernization and Removal of Obsolescence (MODROB) for Year 2019-20 for Project titled "Modernization of Electrical Drives".

Department is committed to impart quality education. For this purpose the department always strives to develop globally competitive technical manpower compatible for industry and sustainable development of society. EED pursues continuous development of infrastructure. The department encourages to provide the students a technologically up-to-date and intellectually inspiring environment.

The Electrical Engineering has 11 laboratories with the state of art facilities namely Ph.D. research laboratory, Electrical Machines, High voltage engineering,

> switchgear and protection, control system, Power electronics, Computer, Electrical measurement and measuring instrument, Network analysis and Basic Electrical engineering laboratory.

Electronics & Telecommunication Engineering

Department of Electronics and Telecommunication Engineering is one of the major departments established in 2010. Department faculty members are actively involved in R & D activities. The department is having well equipped laboratories with state of the art equipments distributed in Seven laboratories namely:

- ANalog Electronics Lab
- Digital Electronics Lab
- Microwave & Communication Lab Microprocessor and Microcontroller Lab
- •VLSI Lab

- Computer Lab
- Electronics Measurment & Instrumentation Lab

The software packages available are worth more than 1 crore. Association of Student of Electronics & Telecommunication Engineering (ASET), Students Association of the departmental students is active in organizing various co-curricular, extracurricular activities that include expert lectures, workshops, technical festival, etc. The students are keen to participate in the various activities being organised in the nearby Institutes of the region.

Proffesional body like IETE is actively conducting various programmes for students.

Instrumentation Engineering

Instrumentation Engineering Department is established in 1996. Under the Gondwana University, Gadchiroli. GCOEC is the only Institute which offers a UG program in Instrumentation Engineering. This department has strong team of dedicated and committed faculty members who have done their UG, PG and Ph.D degrees from the premier Institutes.

Department has recieved NBA accreditation status for duration June 2019 to June 2022.

Its undergraduet program is accredited by NBA on 30th Dec. 2019 for 3 Years. The Department is strong with Faculty Members with Ph.D. or most of them pursuing Ph.D. in various field.

Special Grant of Rs. 2 Lakhs is recieved to Department for Biomedical Instrumentation Laboratory by Vidarbha Vikas Mahamandal. Also department recieved MODROB Grant-in-Aid of Rs.12 Lakhs for Project titled "Modernization of Wireless Sensors and Transducers Network Laboratory".

The department has well equipped laboratories like Sensors, Process Control, Electronics, Analytical Instrumentation, Measurement & Control, Microprocessor & Microcontroller, Computers and Biomedical Instrumentation. The department has the latest simulation tools to cater to various specializations and is equipped with facilities

for measurement, control and synthesis of experimental as well as theoretical results. Department has incurred total expenditure on the equipments of about Rs. 1.83 Crore since inception.

Mechanical Engineering

Department of Mechanical Engineering is a major and renowned department in the Institute having qualified and experienced faculty with good quality students.

The department is having well equipped laboratories and three Centres of Excellence i.e. Product Lifecycle Management, Digital manufacturing and Mechatronics & IOT. In GCOEC, Mechanical Engineering is one of the top choices of the students. Department of Mechanical Engineering receives top 60 students among the intake capacity of 340. The Department currently runs B.E. (Mechanical) Degree Program. Duration of the program is 4 years comprising eight semesters.

Its undergraduet program is accredited by NBA on 17th Oct. 2018 for 3 Years. The Department is strong with Faculty Members with Ph.D. or most of them pursuing Ph.D. in various field. The department is recognized as a Center of Higher Learning & Research (CHLR) in the Gondwana University Gadchiroli. This achievement assures to pave the way of overall growth and development of the Department. The department strives to be the best UG and PG learning centre as well as a hub of research in the tribal region of Chandrapur and Gadchiroli Districts. The endeavor of the department is focused on establishment of a facility that caters to a good quality Under Graduate and Post Graduate technical human resource to the society. The status of accreditation qualified the department to begin a PG program in Mechanical engineering Design(MED).

Library

With good number of titles and volumes of printed books the spacious reading area lends a calm and comfortable atmosphere for students and faculty members to pursue excellence in academics. NPTEL video lectures are available for most of the disciplines. The library also provides books under book bank scheme.

Institute has recently recieved grant of Rs. 14.398 Cr. for new seperate Liabrary Building of which Construction work is in progress.

Facilities and services offered:

- E-Access Service
- Digital Library Service
- Media Resource Service
- Reference Service



| NY | | | International Journals | e-Journal | NPTEL Video Course |
|------|-------|----|---------------------------|-----------|-----------------------|
| 4370 | 27650 | 36 | 04 | 04 | 129 |

Variouse Cells / Committees / Associations

As per the expectation of various governing institutions and prevailing practices various below listed cells, committees and associations are working in the institute:

- Alumni Association
- Anti ragging Committee
- Grievance redressal committee
- Internal Quality Assurance Cell
- NSS-National Service Scheme
- SC/ST grievance Cell
- Student Counseling Cell
- Women grievance cell

Various Students Associations

- IESA Instrumentation Engineering Students Association.
- MESA Mechanical Engineering Students Association.
- ASET Association of Students of Electronics & Tele. Engg.
- EESE Electrical Engineering Students Association.
- CESA Civil Engineering Students Association.
- ACSES Association of Computer Science and Engineering Students.

Training & Placement

GCOEC has a dedicated Training and Placement Cell. The students are given placement opportunities through campus and off-campus mode. Reputed organisations including MNCs visit regularly for recruitment. The companies visiting the campus, mainly include:

- Wipro Technologies Paramatrix Technologies TCS L&T InfoTech Daniel Floor
- Polycab Shatam Technologies Xceller Yadlee Triveni Turbines etc.

Soft skill training related to improvement in communication, presentation and technical skills through corporate trainers are regularly organised. Students from first year to final year are benefitted through such programmes. Institute has MoU with Tata Consultancy Services, Axiom Softek etc to train students in soft skills and technical skills. Tata Consultancy Services is executing its module on soft skills and technical skills for the students at weekends in the Institute since last year and going to continue for coming year.

Industry Institute Interaction Cell (IIIC) is working to liaison with nationwide industries. The cell is entrusted with managing industrial trainings, visits, case studies. Regular programmes in the form of Expert lectures, weekly training by industries are organized on regular basis for all disciplines. Industrial visits of the students are carried out regularly to industries like:

Mahindra and Mahindra (Nagpur Division) Jindal Steel BILT Ballarpur Manikgarh Cement etc. also we are facilitate inhouse training for students at Center for Invention, Innovation, Incubation & Training (CIIIT), which is established in our campus.

Training & Placement Cell put efforts for MNCs to visit the campus, however students of this Institute are also appearing in the campus placement drives at various nearby Institutions in the region. In 2019-20 aspirant students participated in the campus drives for Various MNCs. some of the students are employed at MNCs / organizations as below:

















































Center for Invention, Innovation, Incubation and Training (CIIIT) Chandrapur Maharashtra

The institute has recently signed a MoU with Tata Technologies Limited (TTL) to establish a Center for Invention, Innovation, Incubation and Training (CIIIT). The total cost of this project is Rs. 263.4 crore.

The Nine Centers of Excellence Established under this project are listed as follows:

| Sr. No. | Names of Centers of Excellence | Key Features | Career Oppurtunities |
|---------|---|---|---|
| 1 | Innovation Design and Incubation Centre | High End Industrial Workstations | Automotive Industries, Aerospace Engineering, Construction Equipment's, |
| 2 | Product Verification Analysis Centre | • CREO Basic Modules, | Locomotive Industrial Heavy Machinery, |
| 3 | Product Lifecycle Management Centre | CREO Advanced Modules | Consumer Goods, Oil and Gas Manufacturing Industries, |
| 4 | Value Engineering and Benchmarking Centre | Workstations | Steel Industries, Electricals and Electronics etc |
| 5 | Autonomous Connected Electrified (ACE) Centre | Design Thinking & Innovation ProcessProduct Design | Automotive Industry, Aerospace Industry, Consumer Goods, Construction & Agricultural |
| 6 | Mechatronics and IOT Centre | and Development | Equipment's, Industrial Heavy Machinery, |
| 7 | Digital Manufacturing Centre | RegulationsIndustrial Best | Manufacturing Industries, Steel Industries, |
| 8 | Manufacturing Execution System Centre | Practices • Product Lifecycle Management | Electricals and Electronics |
| 9 | Advance Manufacturing Centre | Tools • Internet of Things Hardware | |





Campus Amenities



HOSTEL

Separate hostels for boys (176) and girls (156) with spacious rooms and adequate storage areas are available. Hostel-students have Wi-Fi facility. Extra accommodation for girls is provided in vacant. quarters. Internet connectivity is provided at common hall at each floor. Hostels are attached with kitchen, a dining hall and a reading room.



Wi-Fi Campus

The Campus is interconnected through Wired as well as Wireless (Wi-Fi) Network through NKN connectivity with 100Mbps link, expected to be enhanced to 200Mbps with a backup connection. Wired connection are available through 800+ nodes evenly spread throughout the campus.



ATM

ATM is installed at Main Entrance of the campus.



Auditorium

An Auditorium having seating capacity of 350 people fully air-condition with state of the art Audio system is available



Audio-Visual Room

An Audio-Visual Room fully air-conditioned with 100 seating capacity is available at Mechanical Engineering building.



Power Backup

Two DG sets, each having capacity of 62.5KVA(Silent Power) are installed in the campus to fulfill the power needs in the shutdown slots.



Medical Facility

There is a medical center within the campus to cater to the needs of the students at the time of emergency.



· Cafeteria

College has canteen facility in the college premises. The canteen provides hot lunch, snacks and beverages both to the students and staff at reasonable rates. Adequate seating facilities are provided to accommodate students and staff. Cashless facility is also provided in the canteen.



Co-Operative Store

The co-operative store is working under cooperative society to caters the needs of the students and employees



Guest House & Staff Ouarters

A decent guest house (Type VI), staff quarters for the faculty (Type VI, V and IV) and staff (Type III, II and I) are available in the campus

INSTITUTE ACTIVITIES:











For Admission & Other Details:

Prof. S.W. Burande

Incharge, Admission Counseling
Cum Process Cell

Contact: 9822231418, 07172-227702

e-mail: principal.gcoechandrapur@dtemaharashtra.gov.in

Office Working Hours: 10am to 5 pm

Visit to Our Institute Website for More Details :

www.gcoec.ac.in

for Admission Process visit to: www.dtemaharashtra.gov..in