

**INFORMATION BROCHURE
FOR
MASTERS DEGREE ADMISSION**



**CENTRAL INSTITUTE OF TECHNOLOGY, KOKRAJHAR
DEEMED TO BE UNIVERSITY UNER DE-NOVO CATEGORY**

(Ministry of HRD, Govt. of India)

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1. INTRODUCTION

1.1 ABOUT THE INSTITUTE

Central Institute of Technology (CIT), Kokrajhar, is a 'Deemed to be University' under De-novo category vide Notification No. F.9-1/2016-U3 (A), dated December 13, 2018. The Institute is under the Ministry of Human Resource Development (HRD), Government of India. It was established as an outcome of the Memorandum of Settlement (MoS) on Bodoland Territorial Council (BTC) signed between the Assam Government, the Union Government and the Bodo Liberation Tigers, on February 10, 2003, in New Delhi. The foundation stone of CIT Kokrajhar was laid on 10th of February, 2003 by the then Honourable Chief Minister of Assam, Sri Tarun Gogoi in presence of the then Honourable Deputy Prime minister of India Sri L. K. Advani. Consequently, CIT started its academic and administrative functions from December 06, 2006. The Institute is run by an autonomous body registered with the Societies Registration Act 1860 and functions under a Board of Governors (BoG).

CIT was established for the basic objective of fulfilling the aspirations of the Bodo people relating to their cultural identity, language, education and overall economic development of the region. The academic programmes and curriculum lay emphasis on imparting the youth with requisite technological and vocational training to produce the required manpower to give an impetus for economic growth of the area and to integrate the people of Bodoland into the mainstream of technical and vocational Education.

CIT is mandated to impart technical and vocational education such as Information Technology, Bio-Technology, Food Processing Technology, Rural Industries, Business Management, etc. as part of the concerted efforts being made by the Government of India and the Government of Assam to fulfill the aspirations of the people of Bodoland and the entire North-East region.

1.2 LOCATION

Central Institute of Technology Kokrajhar is located at a serene landscape at about 12 kilometers north from the district headquarter of Kokrajhar District of lower Assam. It is located in a peaceful environment comprising of the cultivation lands and villages of various sections of indigenous people. The Institute is easily accessible by Railway and Highway. It is at a distance of 10 km south of NH-31 and 10 km from the Kokrajhar railway station. The nearest airport is LGBI Airport, Guwahati which is about 240 km away from the Institute.

1.3 INFRASTRUCTURE

CIT Campus is presently spread over an area of about 250 bighas of land and further acquisition of land is in the process. The campus consists of Academic Blocks, Administrative Block, Director's Residence, New Library Building Workshop Building, Four Hostels, Guest

House, Faculty and Staff quarters, Health Centre, Recreational Centre, Gymnasium, Sports Complex and Playgrounds. The constructional activities of new faculty and staff quarters, auditorium, new hostels, new academic blocks etc. are in progress.

1.4 ADMINISTRATION

Central Institute of Technology Kokrajhar is administered by a Board of Governors (BoG). The Board of Governors consists of members appointed as per the norms of Government of India. CIT is a Centrally Funded Technical Institute (CFTI) under Ministry of HRD, Government of India. IIT Guwahati is the mentor of the Institute. Presently, Director and Registrar are in the highest positions of administration and are assisted by various sub-committees.

1.5 ACADEMICS

CIT is currently following a two structure modular pattern of education with Diploma and Degree Modules. The Diploma and Degree programmes were started in the year 2006 and 2009 respectively. From this year onwards CIT is starting the Master Degree programme in M.Tech and M.Des. At present, CIT Kokrajhar has seven core departments: Electronics and Communication Engineering, Computer Science and Engineering, Instrumentation Engineering, Food Engineering and Technology, Civil Engineering and Multimedia Communication and Design.

Other departments include Basic Science, Mathematics, Physics and Chemistry, Allied Engineering department comprising of Electrical and Mechanical Engineering and Humanities and Social Science Department comprises of English, Economics and Sociology. The total number of students enrolled in various courses under Diploma, Bachelor of Design and Bachelor of Technology programmes is more than 1400. The Institute has more than 100 faculty members from diverse fields of Science, Engineering and Technology and Humanities and Social Sciences.

1.6 MoU

The Institute has signed MoUs with IIT Guwahati and Bodoland University, Kokrajhar for extending collaboration in various educational and professional programmes.

2. VISION & MISSION

The Central Institute of Technology, Kokrajhar, has a vision–

- ❖ To be a Centre of Excellence in Technical and Vocational Education.
- ❖ To build a high-tech campus with all infrastructure and state-of-art facilities, committed to facilitate and promote latest technology, vocational skills and training.

- ❖ To encourage innovative teaching, training and learning methodologies and implement target group-specific skill development programmes.
- ❖ To foster Institute-Industry participation to build synergies in entrepreneurship, market oriented programmes and employability of participants in technology-intensive enterprises
- ❖ To create a vibrant environment for education with an ethos for research and development.
- ❖ To build a Green Campus by emphasizing on adopting energy efficient buildings, power from alternative energies, rainwater harvesting, showcase technology for energy conservation and address climate change issues.
- ❖ To contribute to the socio-economic development of the region.
- ❖ To create a unique brand name for itself in the field of technical and vocational education in the country.

The Mission of Central Institute of Technology, Kokrajhar, is-

- To establish a world class Institute for education, career, technology and vocational training.
- To promote a two cycle modular structure with the objective to make students free from a single career path by enabling them to opt for alternatives at different stages of their study.
- To ensure access to education, training, knowledge and technology for promoting skills and innovations to all.
- To foster skill development with innovative teaching techniques and learning technologies such as e-business and e-learning.
- To address challenges in rapid shifts in the nature of demand for skills by emphasizing on research, development, commercialization and industrialization with necessary thrust to shift from traditional mass approaches to provide more customized training.
- To focus on Institute-Industry partnership to implement innovative strategies to create new entrepreneurs, enterprises and industries with access to leading edge skills and technology.
- To empower the people to fulfill their aspirations by fostering know how in technology and vocational training to produce skilled and trained manpower from the Bodoland area by serving as a link between education, industry and economic self-reliance.

3. PROGRAMMES OFFERED BY THE INSTITUTE.

Currently the institute offers the following programmes:

(i) **Diploma** (3 years) in Electronics and Telecommunications, Computer Science , Control and Instrumentation Engineering, Food Processing Technology, Construction Technology and Multimedia Technology.

(ii) **B.Tech.** (4 years) in Electronics and Communications Engineering, Computer Science and Engineering, Instrumentation Engineering, Food Engineering and Technology, Civil Engineering.

(iii) **B. Des.** (4 years bachelor degree in Design).

(iv) **M.Tech.** (2 years Master Degree in Engineering) in Food Engineering and Technology, Water Resources and Hydrology, Green Energy Technology and Computer Science and Engineering

(v) **M.Des** (2 years Master Degree in Deign) in Multimedia Communication and Design.

4. FACILITIES OF THE INSTITUTE.

4.1 HOSTEL FACILITY.

The Institute has six hostels, three for boys' and one for girls' inside the campus and two girls' hostel outside the campus. Currently, two boys' hostels with a capacity of 336 each and one boys' hostel of capacity 252 are being used inside the campus. And one girls' hostel with a capacity of 234 is being used inside the campus. The Hostel Management Committee of CIT Kokrajhar comprising of Member Secretary, Chief Warden and the Wardens of individual hostels look after the overall affairs and administration of the hostels. It is mandatory for all the hostels boarders to obey the hostel rules and regulations. The Institute endeavors to provide hostel accommodation to all the admitted candidates but does not guarantee one. The institute provides 24 hour power supply, LAN and internet facilities with Wi-Fi in all the hostels.

4.2 LABORATORY FACILITY.

The institute has well established laboratories in all the departments as per the requirements of Diploma and Degree Programmes. All the laboratories are equipped with state of art infrastructure with modern facilities including uninterrupted power supply and internet facilities to create an amiable atmosphere for laboratory classes and R&D activities. The institute give due emphasis on designing the laboratory classes in accordance with the concepts taught in the theory classes. The institute is committed to provide best experimental practices to all the students under the expert guidance of faculty members and laboratory staffs. Every year the institute gives due importance in upgrading its existing laboratories facilities with latest equipment and software tools.

4.3 RESEARCH AND DEVELOPMENT FACILITY.

The institute gives due emphasis on enhancing its R & D facilities in the departmental laboratories to facilitate research activities among the faculty members and students of the institute. The faculty members and students of the institute have published many research papers and attended international and national conferences in the year 2018. The institute has R& D Cell headed by Dean (Research) to assist and guide new research activities in the institute.

4.4 COMPUTER CENTRES.

The institute has two central computer centres with more than two hundred and fifty nodes with the latest Operating Systems and applications software. The computer centres are connected with a 2Mbps leased line for Internet access through a wireless LAN and NKN connectivity of 100 Mbps leased line. In addition to this, departments like ECE, IE, CE, IT and AMT have individual computer centres to cater departmental needs.

4.5 LIBRARY FACILITY.



The Institute has a separate building for Central Library spread over 22,000 Sq. feet area and fully digitized with Self Issue-Return System, Opac Terminal, Self-Check System, Anti-Theft Alarming System,

Flap Barrier, CCTV Surveillance System, 24 hours backup facility, separate server, more than 127377 volumes (reference and text books), 16491 e-books, 1499 e-journals, 2570 printed magazines, 47226 subscribed proceedings/standards/videos, 1500 CD/DVD and 1800 Institutional Repository. Library also provides 9 reputed newspapers daily. The services provided by the Central Library are: Lending Services, Reference Service, Current Awareness Service (CAS), Inter Library Loan Service (ILL), Reading Room Service, Separate Digital Library (02), Faculty Study Corner and User Awareness and Photocopying Services. Library also provides E-library facility and Mobile App facility to its users for remote access of library resources anywhere and anytime. For more information you may visit <http://centrallibrary.cit.ac.in/>.

4.6 TRANSPORT FACILITY.

CIT has 4 buses plying to and fro from Kokrajhar town to facilitate the transportation of the students to the Institute.

4.7 TRAINING AND PLACEMENT CELL:

The Institute has a separate cell for Training and Placement headed by a Training & Placement Officer (TPO). The Cell organizes and coordinates Campus Placement Programmes, frequent industrial visits, implant trainings and projects of industrial relevance to the students, with the sole aim of zeroing down the hiatus between the industry and the academia.

4.8 GAMES AND SPORTS FACILITY:

Games and sports are encouraged among the students of the institute since it keeps a healthy balance between physique and mind of an individual. The institute provides all the basic sporting facilities to the hostel boarders. The institute has a sport complex with facilities to play Basketball, Volleyball, Lawn Tennis, Badminton etc. Recently, the institute has modernized the sport complex with new facilities. The institute playground is under construction and will be ready by the start of new session. Every year sporting competitions are organized among the students during occasions like “Ecstasy”, the annual sports and cultural week of the Institute.

4.9 CANTEEN:

The Institute has a Canteen to cater to the food requirements of both the staffs and the students. A new canteen has been recently introduced in the campus to meet the high quality demands of the staff and the students.

4.10 INTERNET FACILITY:

The institute provides full fledged internet and LAN connectivity to administrative block, academic block, laboratories, workshops, staff quarters, guest house and hostels within the campus. Wi-Fi Connectivity is also available to both the staff and the students inside the campus.

4.11 MEDICAL AND HEALTH SERVICE:

The Institute has a health centre inside the campus. It is equipped with all the primary medical facilities. A medical officer and a staff nurse is in-charge of the health centre to address the medical needs of both staff and students of CIT. An ambulance is available for 24×7 Hrs to provide emergency medical services to both staff and students. Medical insurance facility is available for staff and students.

4.12 GUEST HOUSE:

The institute has a Guest House with A/C and non A/C rooms which is primarily meant for the guests of the institute. A full-fledged Conference Room forms a part of the Guest House.

4.13 VIRTUAL CLASSROOM:

A well-equipped virtual class room has been recently inaugurated for attending and interacting e-classes broadcasted from institutes like IITs, IISc etc. and for organizing e-conferences, seminars, invited talks etc.

4.14 STUDENT AFFAIRS:

Student's affair section conducts various recreational and developmental activities among students and provides necessary guidance while addressing issues of students relating to academics, hostels or other grievances. Student Affairs Cell comprises of faculty members and it holds a strong responsibility in maintaining a cordial atmosphere in the institute.

4.15 RECREATIONAL CENTRE:

The institute has a recreation centre which is used for recreational activities like showing of documentaries or movies, invited talks, workshops and other recreational events.

5. DISCIPLINES AND INTAKE CAPACITY:

From this year onwards Central Institute of Technology offers following Full-Time Masters Degree programmes in:

- I. Two year Master of Technology programme in four specializations and
- II. Two year Master of Design programme in one specialization

5.1 M.Tech. Programme.

The details of specialization and their intake capacities under M.Tech. programmes are:

Specialization	Department	Intake Capacity
Food Engineering and Technology	Food Engineering and Technology	18
Water Resource and Hydrology	Civil Engineering	18
Green Energy and Technology	Electrical and Mechanical Engineering	18
Computer Science and Engineering	Computer Science and Engineering	18
Total		72

5.2 M. Des. PROGRAMME.

The details of specialization and the intake capacity under M. Des. Programmes is as given below:

Specialization	Department	Intake Capacity
Multimedia Communication and Design	Multimedia Communication and Design	15
Total		15

6. ELIGIBILITY CRITERIA.

The details of the eligibility criteria for admission to various M.Tech./M.Des. programmes are given in this section. The Senate reviews the same for admission to the M.Tech. / M.Des. programme from time to time. Relaxation in academic qualification for reserved categories of students is as per Government of India guidelines.

6.1 MINIMUM QUALIFICATIONS:

6.1.1 Minimum qualifications for M Tech Programme.

Minimum CGPA of 6.5 or 60% of marks or First Class in the qualifying degree, fulfilling specific requirements for different disciplines, are as indicated below:

6.1.2 Food Engineering & Technology: B.E/ B.Tech. degree in Food technology/Food Engineering /Food Engineering &Technology /Food Technology &Biochemical Engineering /Agricultural & Food Engineering/Biotechnology or M.Sc. degree in Food Technology /Food Science and Technology/ Food Processing Technology/ Biotechnology for the specialization of Food Engineering & Technology or equivalent and a valid GATE score

6.1.3 Water Resources & Hydraulic Engineering, B.E/B.Tech. Degree in Civil Engineering /Water resources/hydraulic Engineering or equivalent for the specialization of and a valid GATE score

6.1.4 Green Energy Technology: B.E/B.Tech. Degree in Electrical Engineering/ Mechanical Engineering/ Electronics Engineering/Instrumentation Engineering/ Energy Engineering or equivalent and a valid GATE score

6.1.5 Computer Science & Engineering, B.E/B.Tech. Degree in Computer Science & Engineering/ M.Sc. (Computer Science/Information Technology) /Graduates (AMIETE) from Institution of Electronics and Telecommunication Engineers (IETE) in Computer Science/& Engineering or MCA from a recognized Institution or equivalent and a valid (GATE) score.

6.2 Minimum qualifications for M.Des. Programme

Minimum CGPA of 6.0 or 55% of marks in the qualifying degree/diploma having All India Common Entrance Examination for Design (CEED) qualification/score

6.2.1 Multimedia Communication and Design. 4-year Bachelor's degree or equivalent in Multimedia Communication and Design/Design/Animation/Engineering/Architecture/Interior Design or a Design related

field or 4-year Professional Diploma in Design of NID or Professional Diploma of CEPT (5-year programme) and a valid (CEED) score.

All India Common Entrance Examination for Design (CEED) qualified candidates of other relevant discipline, such as Fine Arts/Applied Arts/Mass Communication, may also be eligible

7. MEDICAL FITNESS:

Admission into any of the Masters programme of the institute is subject to the candidates being declared medically fit by the Institute Medical Officer or a medical officer of Govt. Hospital for the purpose. Necessary fees as prescribed by the medical officer shall have to be paid by the candidates for such test.

8. RESERVATION POLICY:

Institutes follows Govt. of India reservation policy.

9. ADMISSION PROCEDURE:

The selection of aspiring candidates for admission in Masters programme shall be merit -based on GATE score for M.Tech. and CEED score for M.Des. programme. However, the candidates must fulfill the eligibility criteria of essential Educational Qualification. The list of sort listed candidates would be published in the admission web portal for a selection test/interview for admission.

In the event of seats remaining vacant during admission process, institute may decide and conduct an entrance examination for candidates without valid GATE/CEED score for admission. The date and relevant details of the entrance examination, if conducted, would be notified in the admission web portal (<http://pgadmission.cit.ac.in>) and local newspaper.

10. HOW TO APPLY:

Candidates may fill the application form through our online portal by logging on to the website: <http://pgadmission.cit.ac.in>. The last date for applying for admission is 24th May 2019. Candidates need to print and retain a hard copy of the online application form for own reference.

1.1. DEPARTMENTAL PROFILES:

1.1.1 ELECTRONICS AND COMMUNICATION ENGINEERING.

INTRODUCTION

Electronics and Communication Engineering is an endlessly rising industry in today's digital scenario. Within the last twenty years many improvements and advancements in technology have created a world which relies on electronic services and communication. It is the utilization of science and math applied to practical problems in the field of Electronics & Communication. The Electronics and Communications Engineering programme emphasizes technical skills that are used to design, develop, install, test and maintain various electronic communication systems. Modern communications industry is growing at a phenomenal rate and there is a great demand for trained professionals in this area. All of them have a purpose and many of them are quite necessary in day to day lives of people like cellular telephones, radios and television etc. The students of diploma and degree are qualified for professional practice or to work in several areas of specialization. The department trained students as professional engineers through an education in fundamental principles presented in the context of real applications and design. The program provides a solid background in fundamentals of science & mathematics, Devices & Circuits, Analog & Digital Electronics, Electromagnetics, communications, signal processing etc. The employment avenues for them include data and telecommunications services, computer networking, TV and satellite services, and research & development of electronic communication systems.

COURSES

The department offers Diploma and Degree Program in Electronics & Telecommunication Engineering and Electronics & Communication Engineering.

B. Tech in ECE

B.Tech course started in the year of 2010. Course Duration of B. Tech in ECE is 4 (Four) years & the Scheme of Examination is Semesters basis. Intake capacity of B. Tech course is 60.

Diploma in ECE

Diploma course started in 2006. Course Duration of Diploma in ECE is 3 (Three) years & the Scheme of Examination is Semesters basis. Intake capacity of Diploma course is 30.

VISION

To become an excellent educational hub to impart knowledge, engage in research for new findings, nurture skills relating to ground reality. To produce dynamic and motivated

engineers, technologists and entrepreneurs who can contribute to the development and progress in the field of Electronics and Communication.

MISSION

- To adopt innovative teaching-learning methodologies to envisage proper blend of theoretical and practical knowledge in the emerging areas of Electronics & Communication Engineering.
- To create proficient professionals who can either work as an individual or in a team with good leadership skill in an amalgamated work area of diverse knowledge.
- To help the student to be a prosperous and accountable engineer for the benefit of mankind by inculcating social and ethical values in professional engineering program.

PROGRAMME EDUCATIONAL OBJECTIVES

- PEO1 To prepare students with a solid foundation in engineering, science and technology for a successful career in Electronics and communication Engineering.
- PEO2 To prepare students to undertake innovative and/or collaborative R&D activities to meet the technical and engineering challenges.
- PEO3 To prepare students to engage in professional development through self-study so that they can excel in engineering carrier as well as entrepreneurship.
- PEO4 To equip students with ethical and synergetic values in order to make the become responsible engineers.

PROGRAMME OUTCOMES

Electronics and Communication Engineering graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multi-disciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

INFRASTRUCTURE.

The Department has classrooms equipped with modern teaching aids, laboratories departmental computer laboratory and staff rooms. All the laboratories are well-established as per the requirements of Diploma and Degree Program with excellent infrastructure related to the field of Engineering. The laboratories are well equipped laboratories with modern and sophisticated equipment, laboratory trainers and software tools. All laboratories provide every possible assistance to undergraduate and diploma students to learn Electronics Engineering from the basic level.

Some of the laboratories as per curriculum are:

- 1) **Basic Electronics Laboratory.** It is equipped with a number of analog trainer kits, all required desecrate components, analog IC's, Variable DC power supply, Analog and Digital meters, DSO, CRO, function generators, etc. Experiments on Basic Electronics, Analog Electronics, Linear Integrated Circuits (LIC), Electronic Devices and Circuits

(EDC), Power Electronics lab, Electronic Workshop, Electronic Circuit troubleshooting are conducted in this laboratory.

- 2) **Digital Electronics Laboratory.** It is equipped with a number of digital trainer kits, Digital IC's of basic logic gates, IC's Combinational and Sequential logic circuits, Variable DC power supply and digital multi-meter. Experiments on Design and implementation of Digital Circuits are conducted in this laboratory.
- 3) **Microprocessor and Microcontroller Laboratory.** It is equipped with 8085 microprocessor and 8051 Microcontroller trainer kit. Experiments on Programming and interfacing with microprocessor and microcontroller are conducted in this laboratory.
- 4) **Software Simulation Laboratory.** It is equipped with PCs connected to the internet and DCN Trainer kit. There are up-to-date Circuit Simulators like Multisim-V14, Visim and etc. Experiments on Circuit Simulation, VLSI modeling simulation, Data and Computer Networks (DCN) are conducted in this laboratory.
- 5) **Communication Laboratory.** It is equipped with Analog communication Trainer kit, Digital Communication Trainer Kit, Digital Signal Processing Trainer Kit, PCs loaded with MATLAB, CRO, DSO, function generator, spectrum analyzer etc. Experiments on Analog Communication, Digital Communication, Control System and Digital Signal Processing are conducted in this laboratory.
- 6) **Microwave Laboratory.** It is equipped with different microwave frequency generators such as Gunn Diode and Klystron tube, VSWR meter, different Couplers, CRO, Antenna Trainer kit with different kinds of Antenna, Transmission Line trainer kit for different microwave experiments. Experiments on Microwave engineering are conducted in this laboratory.
- 7) **Project and Research Laboratory.** It is equipped with tools i) TCAD ii) ATLAS iii) Tanner iv) Optimism. These tools are used for device simulation for a broad range of applications, Data acquisition and analysis etc.

SCOPE:

After completing 3 years diploma in this department student may join in any company/academia related to electronics and communication or may take admission in the B.Tech. 2nd year of Electronics and Communication engineering (lateral entry). In CIT 30 seats are reserved for diploma students.

After completing 4 years degree in Electronics & Communication Engineering students will get opportunity to do job in software based company or hardware based company like. Bharti Airtel Ltd, Tata Indicom, Reliance Infocomm, Videocon, AT&T, Texas Instruments, Nokia India, Siemens, Honeywell India, Wipro technologies, TCS, CTS, Infosys, Cadence, and INTEL etc.

Students may join in government sector like: Indian railway, Metro railway, DRDO, ISHRO, Bank, Defense services, Door Darshan, radio station, BHEL, BEL, ONGC, GAIL, SAIL, NTPC, WBPDCCL etc. Students willing for higher studies are eligible to take admission in M.Tech in any institution all over India.

11.2 COMPUTER SCIENCE & ENGINEERING:

INTRODUCTION:

The Department of Computer Science and Engineering was established in the year 2007 offering 3 Years Diploma in Computer Science with an annual intake of 30 Students. From 2009, the department offers 4 years B.Tech Degree program in Computer Science and Engineering with an annual intake of 66 Students (45 Direct entries +15 Vertical + 06 Lateral) entries. The department is has 10 faculty members and 3 technical staff members.

VISION:

To become a centre of excellence in the field of Computer Science in the region as well as in the nation, produce highly competitive technical human resource by imparting technical knowledge and skill, develop entrepreneurship and cater the needs of the industry and society.

MISSION:

- To provide exposure to students to the latest tools and technologies in the area of computer hardware and software.
- To promote research based projects/activities in the emerging areas of technology convergence.
- To contribute to the socioeconomic development of the region as well as the nation through varied computer applications, including ICT and contribute in the “Digital India” initiative of the government.
- To promote entrepreneurship development in Computer Science & Engineering.

PROGRAMME EDUCATIONAL OBJECTIVES:

PEO1. To achieve the skilled graduates on providing better fundamentals of Computer Science and Engineering

PEO2. To prepare engineering graduates to become effective collaborators innovators for addressing social, technical and engineering challenges.

PEO3. To equip engineering graduates with a high integrity and ethical values to make responsible engineers for society

PROTRAMME OUTCOMES:

- a. **Basic Knowledge:** Ability to demonstrate knowledge of Mathematics, Science & Engineering in development, Computer fundamentals and programming.
- b. **Discipline Knowledge:** Ability to draw flowcharts of compiling a program and perform C programming experiments, analyse and interpret data.
- c. **The Engineer and society:** Ability to design Programming based tools that meet desired specification and requirements for society and its safety.
- d. **Experiments and practice:** Ability to conduct various types of lab experiments on Computers subjects and related areas.
- e. **Engineering Tools:** Ability to use programming languages and software to analyze problems in Computer Engineering.
- f. **Individual and team work:** Ability to communicate as an individual and as a member or a leader in a diverse team and in a multidisciplinary setting.
- g. **Environment and sustainability:** Ability to examine the impact of Computer Engineering solutions in global and environmental contexts and utilize the knowledge for sustained development.
- h. **Ethics:** Ability to observe professional ethics and norms and take responsibility while carrying out problem solving in Computer Engineering practice.
- i. **Communication:** Ability to communicate effectively in both verbal and written form through Programming concepts, coding and analysis.
- j. **Life-long learning:** Engage in life-long learning and adapt to rapidly changing technologies.

INFRASTRUCTURE:

The Department is well equipped with labs exclusively for the department. All computers in the lab have wireless LAN facility connected with NKN of 100 Mbps and BSNL of 2 Mbps. The classrooms are equipped with modern teaching aids. The laboratories include programming with C/C++, Data Structure, Java programming, Compiler design, Operating System/Linux, PC System Technology, Computer Network Lab, Information Security etc. Softwares used are JDK open source, Visual Studio 2010, Fedora Core 12 open source, I-security Simulator, Embarcadero, Turbo C++. Recently, Robotics and Image Processing, IOT and other Labs are developed for doing related projects also.

SCOPE:

Computers have become an ubiquitous part of modern life, and new applications are introduced every day. The use of computer technology is also a common place in all types of organizations, academia, research, industry, government, private and business organizations. As computers become even more pervasive, the potential for computer-

related careers will continue to grow and the career paths in computer-related fields will become more diverse.

The career opportunities for computer science graduates can be classified into seven categories: programming and software development, information systems operation and management, telecommunications and networking, computer science research, web and Internet, graphics and multimedia, training and support, and computer industry specialists. Some careers require additional formal training or study, and experience working in the field. Graduates find opportunities in many IT sector companies like TCS, Infosys, Accenture, CTS Cognizant Technology

Solutions, Computer Associates, Cordys, Cybage Software, Dell, DST Global Solutions, Google, HCL, HP ,IBM, IGATE Global Solutions, Infosys, Larsen &Toubro Ltd, NUT Ltd, Microsoft, Oracle, Yahoo etc.

11.3 INSTRUMENTATION ENGINEERING:

INTRODUCTION:

The Instrumentation Engineering Department of CIT Kokrajhar was established in the year 2007. It initially started with Diploma programme in Control and Instrumentation with an annual intake of 30 students. The Degree programme was introduced in the year 2009 with an annual intake of 66 students (45 Direct entry +15 Vertical entry + 06 Lateral entry).

The department incorporates the modern facilities with well-established laboratories and sophisticated instruments to provide latest technological know-hows to the future technocrats. The faculties and the staff are involved in dedicated learning, teaching, and research and in pursuit of excellence following the current trend in the industry and research. The department is committed to the overall development of the institute as well as the region. The objective of the department is to produce quality personnel who can fulfil the ever increasing demand of skilled professionals in the area of Instrumentation and Control Engineering.

VISION OF THE DEPARTMENT:

To become a center of excellence in the field of Instrumentation Engineering that will produce competitive human resource for serving the society.

MISSION OF THE DEPARTMENT:

M1: To impart technical knowledge and imbibe skills in students to meet the industrial needs and research & development activities.

M2: To emphasize on ethics, human values, tolerance, professionalism, leadership and entrepreneurship qualities among students with a vision towards betterment of the society and region at large.

M3: To create an environment for the students, staffs and faculty members to enhance their skills and expertise in teaching and learning, research and consultancy services.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS):

PEO1: To develop in students the ability to understand the basic concepts of Instrumentation Engineering that will help them in understanding the existing as well as new and emerging technologies.

PEO2: To make the students imbibe the sense of ethics, professionalism, creativity, leadership and management with good communication skills and give exposures to latest trends in technology and its industrial applications through adequate training, projects, seminars and industrial visits to meet the demands of the industry.

PEO3: To inculcate the students with the habit and passion of lifelong learning and paving the way for technical prowess.

PROGRAM SPECIFIC OUTCOMES (PSOs)

The Instrumentation Engineering (IE) graduates will be able to

PSO1: Apply the knowledge and skills of basic sciences, engineering mathematics, electronics, electrical, computer science and managerial attitude efficiently for analyzing the causes and effects in the instrumentation engineering and its allied fields.

PSO2: Model, design and develop the different instrumentation and control systems for various process industries like power plants, petrochemical, oil & natural gas, etc. as well as medical, electronic & electrical industries using both hardware & software and other sophisticated modern tools.

PSO3: Work professionally, effectively and also ethically with the contextual knowledge of instrumentation engineering as a member or leader in a team to manage different projects and in multidisciplinary life-long learning environments.

INFRASTRUCTURE.

At present the department has five laboratories and one seminar hall.

The details are as follows:

IE Laboratory 1: Electronic Devices and Embedded Systems Laboratory:

This laboratory deals with the study and practical implementation of electrical and electronic circuits. The lab is equipped with most of the basic instruments like DSO, Function Generator, Multi-meter, Microprocessor and Microcontroller development boards, various types of analog and digital integrated chips, Trainer Kits for various experiments, soldering station etc. The lab can accommodate with capacity of sixty students. The Practicals for following core subjects are conducted in this laboratories:-

- Basic Electrical Circuits.
- Electronic Circuits and Devices.
- Digital Electronics.
- Microprocessor & Microcontrollers.
- Power Electronics.
- Network Theory.

IE Laboratory 2: Transducer and Instrumentation Laboratory:

- This lab is dedicated for study of various sensors and transducers included in the syllabus of Instrumentation Engineering. This lab includes facilities such as- Instrumentation Bridge trainer kit (like Schering, Maxwell bridge etc.), Biomedical Instrumentation Trainer kit (includes ECG, Filter, NI DAC etc.), various types of transducers (includes RTD, Thermocouple, Strain gauge, LVDT etc.), high resolution multimeter (Agilent 3458A), Thermal Imager, FBG Sensor, Mixed Domain Oscilloscope 1 GHz Spectrum Analyser, data acquisition system etc.
- The Practicals for following Instrumentation engineering subjects are conducted in this lab:-
 - Transducer and Signal Conditioning.
 - Electronics Instrumentation.
 - Measurement and Instrumentation.
 - Principle of Instrumentation.
 - Biomedical Instrumentation.

IE Laboratory 3: Computer Laboratory:

- The Department of Instrumentation Engineering has its own Computer Lab equipped with the latest versions of Desktop computers along with high speed Internet facility and most updated licensed versions of various simulation Softwares. The Softwares

currently available in this lab are, LabVIEW, MatLAB, MultiSIM, PSim etc... Besides, the students can also work on projects related to simulation based semiconductor fabrication in the Computer Lab with the help of TCAD Software, from our Electronics and Communication Department.

- The Practicals of following Computer application subjects are conducted in this lab:-
- Virtual Instrumentation.
- Circuit Simulation.
- Digital Signal Processing.

IE Laboratory 4: Process Control Laboratory,

- This lab has been set up to provide practical insight akin to industrial set up to students in the area of Process and Control with the help of Industrial based application trainer kits. This Lab facilitates study and practice of real time Industrial friendly environment for Calibration, Measurement and Controlling, based on SCADA, PLC, DCS, etc... The lab is equipped with trainer Apex Innovation Series 311A, 312A, 313A, 314A, 326A etc
- The Practical for following Instrumentation and Process Control subjects are conducted in this lab:-
- Instrumentation and Process control
- Control System

IE Laboratory 5: Project and Research Lab.

- The objective of this Lab is to provide a dynamic environment to students to carry out project and research related works that is not limited to the normal official working hours. Students can carry out their individual projects beyond the normal working hours and during the weekends in this Lab. This lab is equipped with a 3-axis CNC-PCB Engraving Machine, various types of microcontroller development boards, Robotics module, various Sensor Modules etc...
- The inter-disciplinary subjects covered under this lab:-
- Robotics
- Alternative and smart Sensing
- e-Yantra
- Mechatronics

Departmental Seminar Room.

- The department seminar hall is used for conducting students' seminars and project and thesis presentations. The department periodically invites experts from academics

and industry to deliver lectures, expert talks, workshops etc. for the students and faculty members.

- The department has a vision to expand its infrastructure to start new courses as well as to introduce new facilities and equipment for facilitating research and consultancy activities.

SCOPE:

Instrumentation Engineers are required in Process industry, manufacturing, EPC industries and research organizations for the design, development, ENGINEERING, PROCUREMENT, INSTALLATION AND COMMISSIONING, maintenance, calibration, operation and troubleshooting of all kind of instruments. Instrumentation Engineers also play the role of Control and Automation Engineer in industries or manufacturing units to control and monitor the industrial processes or operations IN REAL TIME by using STATE OF THE ART TECHNOLOGY USING automated systems like PLC, SCADA and DCS.

Instrumentation Engineers are mostly employed in industries such as Refinery, Oil and Gas, Petrochemicals, Power plant, Steel, Cement, Fertilizers, Chemical, Medical, Aerospace, Pharmaceuticals, Pulp and Paper, Glass, Defence etc. There are well known industries to name a few reputed PSUs i.e. BHEL, NPCIL, HZL, HCL, ONGC, NTPC, IOCL, OIL India Ltd, SAIL, GAIL, BCPL, EIL, Reliance Petrochemicals, ESSAR, BPCL, HPCL, HINDUSTAN PAPER MILLS, State Public Sector Industries, Central PSUs, etc. Instrumentation engineers are also recruited in telecommunication sectors like BSNL, Reliance Jio, Vodafone etc. and software industries like TCS, CTS, Infosys, WIPRO etc. As a Biomedical Engineer, instrumentation engineers find employment in industries like GE, Philips, Siemens, Schneider etc.

Instrumentation Engineers find employment as a Technical Officer in various Government research and Educational establishments.

Instrument engineers find suitable employment with the MANUFACTURERS OF INSTRUMENTATION PRODUCTS EG. SIEMENS, EMERSON, YOKOGAWA, ENDRESS & HAUSER, ABB, INSTRUMENTATION LTD, PALAKKAD, INVENSYS, METSO, GE, HITACHI, TOSHIBA, SCHNEIDER ELECTRIC, ALLEN BRADLEY/ROCKWELL, FUJI ELECTRIC, HONEYWELL, MIL, KSB. There are numerous industries in MSME sector situated in India and abroad who are manufacturers of small scale instrumentation products, hires Instrumentation Engineers and technicians.

Instrumentation Engineers also find employment in LEADING Consulting and EPC organizations like MECON, EIL, TCE, L&T, PDIL, DESEIN, FLOUR DANIEL, SCHLUMBERGER, HYUNDAI, SNAMPROGETTI etc.

11.4 FOOD ENGINEERING AND TECHNOLOGY:

INTRODUCTION:

Food processing is one of the sunrise sectors in our country. To meet the growing demands of processed / partially processed foods, processing industries are striving for technical personnel. The Department of Food Engineering and Technology at CIT Kokrajhar started Diploma in Food Processing Technology from the academic session 2006-'07, and B. Tech. Degree program in Food Engineering and Technology from the academic session 2009-'10. The objectives of these programs are to train students on various areas of Food Science and Technology in order to provide valuable support base of skilled personnel / professionals for the country's food sector. The syllabus is framed to enable students achieve a comprehensive understanding of the whole gamut of food science scenario worldwide, including the emerging areas. The academic and research activities in the department focus on the frontier areas of food process engineering such as food properties and prediction, post-harvest operations, food quality analysis and safety issues, application of nanotechnology in food processing, transport process and kinetics, product development and ingredients innovation, food packaging and storage engineering.

VISION:

To be a centre of excellence in food technology education and research for developing highly skilled professionals capable of continuous improvement

MISSION:

- To produce trained technical manpower competent in the field of food engineering and technology.
- To ensure a synergistic focus on skill developments through curricular and co-curricular program(s) to develop well-rounded food technology professionals.
- To serve the north-eastern region including BTAD and the society at large in food and agriculture sector.

PROGRAMME EDUCATIONAL OBJECTIVES:

PEO 1: To provide technical knowledge, skill and competence to identify, comprehend and solve problem in industry, research and academics in the area of food engineering & technology and related disciplines.

PEO 2: To prepare the students to successfully work in various public and private sector organizations at regional, state, national and international levels, with professional competence and ethical administrative acumen.

PEO 3: To develop students for their life-long endeavors by improving their technical and intellectual capabilities, which may include professional career and/or postgraduate education. This may enable them to successfully adapt to technological and cultural changes for their proper evolution in society.

PEO 4: They will be able to work as an individual, as a team leader or as a member of a team in multicultural global environment.

PEO 5: To fulfill the needs of the locality (North Eastern region of India) and the society at large by solving relevant problems using engineering principles, tools and practices in an ethical and responsible manner. As prepared by the department

PROTRAMME OUTCOMES:

PO 1: Ability to apply principles and hypotheses of mathematics, natural science, and engineering science to identify, comprehend, analyze, and formulate substantiated solution of practical food engineering and technology problems

PO 2: Ability to design and develop system components for practical engineering problems related to industries that meet specified needs

PO 3: Ability to design engineering processes and products to meet the needs of the locality and that of the society at large, within realistic constraints such as economic, environmental, ethical, cultural, health and safety, feasibility, and sustainability

PO 4: Ability to create, select, and apply appropriate techniques, resources, and modern engineering and computational tools to different engineering activities with an understanding of the limitations

PO 5: Ability to understand and apply knowledge on laws and regulations of food and allied areas

PO 6: Ability to communicate effectively on professional activities with the scientific community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, give and receive clear instructions, and to enhance awareness in relevant fields

PO 7: Ability to function effectively as an individual, and as a member or leader in diverse teams in multi-disciplinary settings

PO 8: Ability to recognize the need for independent and life-long learning, and have the preparation and ability to engage in the same

INFRASTRUCTURE:

The Department of Food Engineering & Technology has classrooms, each having a sitting capacity of eighty (80) students. All the classrooms are equipped with state-of-the-art facilities for teaching-learning process. The Department is equipped with six (06)

laboratories namely Food Analysis & Quality Control Lab, Food Chemistry Lab, Food Engineering Lab, Food Packaging Lab, Food Microbiology Lab, and New Product Development Lab. Some of the sophisticated laboratory instruments such as Texture Analyzer, UV-Vis Spectrophotometer, HPLC, Chroma Meter (Colorimeter), RVA StarchMaster2, Milk Analyzer, Lyophilizer, Cold Centrifuge, Kjeldahl Apparatus, Soxhlet apparatus, Crude Fibre analyzer, Dietary Fibre analyzer, FFS Packaging machine are available in the Department for academic programmes and research.

SCOPE:

Food Technology students have a numerous opportunities in private and public sectors for professional establishment and development. Increased consumer's preference for safe, healthy, and convenient food choices are further enriching and expanding such opportunities in food manufacturing and service sector. At the same time, as India gradually gains market share among the global food business and trade, tremendous research opportunities are generated for budding scholars, who want to pursue higher education and/or research career in this area.

11.5 CIVIL ENGINEERING:

INTRODUCTION:

The Department of Construction Technology was established in the year 2009 offering 3 Years Diploma in Construction Technology with an annual intake of 30 students. From 2011, the department offers 4 years B.Tech. degree program in Civil Engineering with an annual intake of 66students (45 Direct entries +15 Vertical + 06 Lateral entries

VISION:

To become a centre of excellence in Civil Engineering by producing high quality human and knowledge recourses to address the current and emerging social and environmental needs.

MISSION:

- **M1:** To impart technical education in Civil engineering and related interdisciplinary fields for fulfilling local, national and global economic and social needs in sustainable manner.
- **M2:** To facilitate integrated personality development of students suited for the era of converging technologies and skills.
- **M3:** To create an environment for research into technical pursuits for capacity-enhancement through development of new tools and technologies.
- **M4:** To promote entrepreneurship development in various sectors of Civil Engineering.

- **M5:** To promote industry- academia interaction in the field of Civil engineering

PROGRAMME EDUCATIONAL OBJECTIVES:

- 1: To impart science based technical education to develop professional skills that will prepare the students for employment in Civil Engineering based industries and organizations.
- 2: To develop the design and analytical capability among students so that they can perform tasks with creativity and integrated approach.
- 3: To develop communication skills, ethics, professionalism, team-work, leadership qualities, entrepreneurship skills and overall personality of the students.
- 4: To create curiosity, desire and ability to undertake research and innovate in civil engineering fields among the students.

PROTRAMME OUTCOMES:

- a. An ability to apply knowledge of mathematics, science and engineering
- b. An ability to design and conduct experiments, as well as to analyze and interpret data
- c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety
- d. An ability to function on multi-disciplinary teams
- e. An ability to identify, formulate, and solve engineering problems
- f. An understanding of professional and ethical responsibility
- g. An ability to communicate effectively
- h. The broad education necessary to understand the impact of engineering solutions in a global economic, environmental, and societal context
- i. A recognition of the need for, and an ability to engage in life-long learning
- j. A knowledge of contemporary issues
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

FACULTY:

The Department has 13 faculty members (01 Professor, 01 Associate Professor and 11 Assistant Professor) and 3 Junior Technical Superintendents. The faculty has teaching expertise in various specializations like Design of Structures, Environmental Engineering, Geotechnical Engineering, Structural Engineering, Hydraulics Engineering, Solid Mechanics and Transportation Engineering etc.

INFRASTRUCTURE:

The Department is equipped with 10 Labs exclusively for the department, one departmental computer centre, and departmental library, classrooms equipped with

modern teaching aids and staff rooms. The laboratories include the Surveying Lab, Geotechnical Lab, Concrete Technology, Pavement lab, Traffic and transportation planning Lab, Water resource Lab, Environmental Lab, Geology and Seismic Lab, Geo-informatics Lab, Computational Lab.

SCOPES:

Civil engineering is a professional engineering discipline that deals with the design, construction, and maintenance of the physical and naturally built environment, including works like bridges, roads, canals, dams, and buildings in both public and private sectors. It focuses on the infrastructure of the world which may include Water works, Sewers, Dams, Power Plants, Transmission Towers/Lines, Railroads, Highways, Bridges, Tunnels, Irrigation Canals, River Navigation, Shipping Canals, Traffic Control, Mass Transit, Airport Runways, Terminals, Industrial Plant Buildings, Skyscrapers, etc. Indian Railways, BEML, NHPC, PWC, NTPC, DVC, ONGC, BHEL, Jaypee, L&T, Reliance Infra Pvt etc. are some of the private and public sector companies recruits Civil engineers.

11.6 DEPARTMENTAL PROFILES OF MULTIMEDIA COMMUNICATION AND DESIGN:

INTRODUCTION:

The Department of Multimedia Communication and Design (MCD) is one of the six departments in Central Institute of Technology, Kokrajhar. The department was set up with a vision to create a holistic academic environment and creative contribution to the Society. Department envisions to enkindle the finest creative minds, a passion for innovation in technology, driven by a firm understanding, appreciation of design.

The department was started in the year 2009. Since its inception the department offers 3 year diploma programme in Animation and Multimedia Technology to prepare students to make a career in the field of Animation and other allied industries. The department has been upgraded in 2015 to widen up its scope and started its Under Graduate Bachelor of Design programme from July 2016. The department currently offers under graduate programme of 4 year / 8 semester Bachelor of Design (B. Des.) in Multimedia Communication and Design and diploma programme of 3 year / 6 semester Diploma in Animation and Multimedia Technology. The focus of the program is to explore the creative use of technologies to build effective and enjoyable experiences in the field of multimedia communication and design. The programme is designed to meet the growing industry need as well as nurture the students to be an independent creative problem solver to the society.

The Bachelor of Design programme is affiliated to Assam Science and Technology University (ASTU), Guwahati and the Diploma programme is affiliated to State Council of Technical Education, Govt. of Assam.

The Department also plans to introduce Masters in Design and PhD in Design with specialization in the field of Multimedia Communication and Design very soon.

VISION:

Department of Multimedia Communication and Design envisions a holistic academic environment for creative contribution to the Society.

MISSION:

- To contribute locally and globally in various creative and educational programmes and help the region to excel in the creative field.
- The Diploma programme is meant to provide a skill-based curriculum.
- The Degree programme is meant to develop Knowledge, Skills, Abilities and Aptitude among students to become creative problem solvers and to bring about innovative ideas in the multimedia communication and design.
- To set up itself as one stop solution point to the creative demand of the industry as well as society as a whole.

PROGRAMME EDUCATIONAL OBJECTIVES:

1. Graduates will be able to engage in ongoing learning and professional development through self-study, continuing education in creative design as well as in other allied fields.
2. Graduates will be able to apply their creative skills, problem solving skills and exhibiting critical thinking in professional practice to tackle social, aesthetic, technical and business challenges.
3. Graduates will be able to adopt ethical attitude and exhibit effective skills in communication, management, teamwork and leadership qualities.

PROGRAMME OUTCOMES:

1. Apply the fundamental knowledge of design concepts in solving design problems.
2. Identify and define design problems, conduct design practices and investigate to analyze to arrive at substantial conclusions.
3. Propose an appropriate solution for design problems complying with functional constraints such as economic, environmental, societal, ethical, safety and sustainability.
4. Perform investigations, design and conduct practices, analyze and interpret the results to provide valid conclusions.
5. Demonstrate professional skills and contextual reasoning to assess environmental / societal issues for sustainable development.
6. Demonstrate Knowledge of professional and ethical practices.

7. Function effectively as an individual, and as a member or leader in diverse teams, and in multi-disciplinary situations.
8. Communicate effectively among design community, being able to comprehend and write effectively reports, presentation and give / receive clear instructions.
9. Demonstrate and apply design & management principles in their own / team projects in multidisciplinary environment.
10. Recognize the need for, and have the ability to engage in independent and lifelong learning.

INFRASTRUCTURE.

The department has a dedicated space for Design Studios/Laboratory in the 1st floor of the academic building – II of the institute. The Multimedia Communication and Design Studios/Laboratory is currently equipped with 80 up-to-date High End Workstations including 10 iMacs for the students to work on 3D Modeling, Texturing, Rigging, Animation, Lighting, Dynamics, Audio and Video Editing with the latest versions of the 3D Software installed and with Internet Connectivity.

2D Lab (Pre-production):

This lab is well equipped with 10 no's of Light boxes to carry out 2D Classical animation (Cell animation). Also a system to digitize the hand drawn animations is allotted to line test their animations.

3D Lab1 (Production):

This is where the students start their lab sessions on Flash Animation, Web Design, Photoshop, Modeling, Texturing and Rigging using Autodesk.

Maya 3D Lab2 (Post-production):

The students in the Final year work on their post productions in this lab, which is equipped with more advanced hardware capable of running any dynamics or simulation thrown at it. This is where they learn on advanced topics such as animation, texturing, lighting, rendering, compositing, and conduct VFX & simulation experiments.

Chroma Studio.

This lab is where the students get to experiment on VFX shots. A green screen stage with lights and up to date cameras enable our students to learn the fundamentals of VFX and composition. It also acts as a room for them to work on their acting and performance.

AUDIO AND VIDEO EDITING LAB:

In this lab, the students get to learn Audio & Video editing on a different platform other than Windows. 10 iMac's with Final cut pro enable them to learn about the process of NLE (Non Linear Editing).

SCOPE:

The Diploma in Animation and Multimedia at MCD strikes a beautiful balance between technology and art, allowing young artists to understand the nuances of animation. The Diploma graduates with enhanced skills in the areas of animation, image and graphics, text, audio and motion video can find jobs in the animation and entertainment Industry spread all over the country and also in abroad. The students after completion of diploma can opt for higher studies at CIT Kokrajhar and get direct entry into the 2nd year/3rd Semester of B. Des. Programme through the Vertical Entry scheme of the Institute, provided the candidate fulfils the minimum eligible criteria.

The graduated Students with enhanced knowledge, Abilities, Aptitude and skills in the areas of animation design, graphics design, audio and video and Visual Effects design, Game design, Web and Digital Design have a wide range of career options which a students can choose industry sectors, such as **Advertising, Film and VFX, Animation, Gaming, Entertainment, Television, Print production and so on**, as well as other industries such as Web development, IT, Mobile phone, Software, Digital media industry and other such engineering and technology areas etc.

The students who wish to be in academic and research field can go for Post Graduate programme and then PhD at various premier institutes spread all over the country as well as abroad.

12.7 ALLIED ENGINEERING BRANCHES:

The allied engineering branches include Mechanical and Electrical Engineering. At present Mechanical Engineering branch is manned by 3 Assistant Professors and 2 Junior Technical Superintendents. The Electrical Engineering branch has 2 Assistant Professors and 1 Junior Technical Superintendents member.

12.8 BASIC SCIENCES:

The Department of Basic Sciences includes faculties from Mathematics, Physics and Chemistry. All these departments are fully equipped with laboratories.

12.9 HUMANITIES & SOCIAL SCIENCES:

The Department consists of English, Economics and Sociology. At present it is manned by 3 Assistant Professors from English, 2 from Economics and 1 from Sociology.

12. GENERAL ACADEMIC REGULATIONS:

12.1 GENERAL CONDUCT & DISCIPLINE.

All students must conduct themselves as responsible people (as ladies & gentlemen). Students are not allowed to:

- (i) Willfully damage or steal or remove property/belongings of the Institute/Hostel or fellow students
- (ii) Indulge in possession, consumption or distribution of alcoholic drinks and drugs.
- (iii) Take part in noisy and unseemly behaviour and disturb studies of fellow students.
- (iv) Resort to ragging fresher/fellow students.
- (v) Take recourse to unfair means in examinations.
- (vi) Use Mobile Phones/I-Phones etc. in the academic buildings, library, laboratories & workshops.

12.2 LEAVE OF ABSENCE.

All leave applications have to be submitted to the concerned Course Coordinators/HoDs stating fully the reasons and supported with documents. Leave of absence will be accepted only within a week of the student's rejoining of classes after ailments or other granted leaves. If a student will be away from the Institute for more than one week then prior application has to be submitted to the Principal through the concerned HoD and such leaves will have to be sanctioned in advance. If a student is absent from the Institute for more than 06 (six) weeks without permission then that will result in his/her name being struck off from the Institute's Rolls. Under no circumstances should a student's attendance fall below 65%. In other words no consideration in attendance will be made once a student's attendance falls below 65% in a subject.

12.3 RENEWAL REGISTRATION FOR CONTINUING STUDENTS.

A student has to register for continuation of study every Semester. Registration Fees will be fixed and announced by the Registrar's Office from time to time. Dis-Collegiate students will have to re-register for the semester they are re-admitting to and such fees will also be duly notified from time to time.

13. COUNSELLING AND ADMISSION.

The counseling and admission for Masters programme will be conducted on 25th July 2019 at CIT, Kokrajhar.

- Candidates selected for admission must get themselves admitted by payment of the fees on the date of counseling failing which their selection shall automatically be treated as cancelled.
- Discrepancies found in the information furnished in the Counselling Form and that in the Application Form may result in the cancelation of admission.

- The presence of the candidate is compulsory during counseling. Under exceptional cases, a parent may be permitted to stand in lieu of the candidate.
- All eligible candidates (i.e., having valid GATE/CEED score) would be called for counseling on a single day. However, all candidates called for counseling are not guaranteed a seat. Admission depends on fulfillment of eligibility and availability of seat.
- The candidates should not forget to bring the original and photo copies of all the relevant certificates during the day of counseling. At the time of counseling and admission the selected candidates must provide the following certificates:
 1. Age proof certificate
 2. Mark sheet of HSLC or equivalent
 3. Mark Sheets of 10+2 or equivalent.
 4. Mark Sheets of relevant Degree courses of all semesters
 5. Valid GATE/CEED score card
 6. Permanent Residential Certificate (PRC)
 7. Caste Certificate (in case of SC/ST/OBC)
 8. Person with disabilities (PWD) Certificate (if applicable)
 9. Conduct/Character Certificate from the institution last attended
 10. Gap Certificate (if applicable)

The certificates listed from (1) to (10) are compulsory for counseling for confirming admission in CIT, Kokrajhar.

14. MEDIUM OF INSTRUCTION:

The medium of instruction in class room and laboratory is English.

15. ANTI-RAGGING:

Ragging in any form is banned in CIT and any one indulging in ragging during the entire period of his/her study in CIT is likely to be punished appropriately which may include expulsion from the Institute, suspension from the Institute or classes for a limited period, or fined with a public apology. The punishment may also take the shape of:

- a. Withholding Results
- b. Withholding Scholarships or other benefits
- c. Suspension or expulsion from the Hostel or Mess or Collective Punishment if the individual committing or abetting ragging is not identified, and/or an entry in the conduct certificate mentioning the act of ragging indulged in by the students concerned.

Admitted students shall have to submit an affidavit on a non-judicial stamp paper duly notarized by the Oath Commissioner by the student and the parent/guardian separately in

a format that is available in the website

http://www.antiragging.in/Site/Affidavits_Registration.aspx within fifteen days from the date of admission otherwise the admission stands cancelled. Further all the students admitted into the hostels have to submit a separate affidavit provided in CIT admission website.

16. FEE STRUCTURE FOR ADMISSION:

The fee structure for admission into various programmes of the institute for the current academic year is available in the Institute's website.

N.B.: The Institute reserves the right to review the fee structure from time to time. The detailed breakup of fees structure can be obtained from the Institute's website.

17. ADMISSION WITHDRAWAL RULE:

Withdrawal of Admission is allowed till 30 days from the date of admission. Candidate can withdraw his/her admission from the Institute by submitting an application form available in the CIT admission website. Refund of Fees after deducting processing fees would be done within this date. No request for refund of fees would be entertained after this period. The details of documents to be submitted along with withdrawal application form is given in admission web portal.

18. ATTENDANCE IN CLASS AFTER ADMISSION:

Attendance on the first day of class of the semester is compulsory. Absence from class without proper intimation during the first 15 days would be treated as withdrawal of admission and such a student would not be allowed to join the classes.

19. HOSTEL ADMISSION AND GENERAL HOSTEL RULES:

For hostel Admission, the candidate has to apply separately in the Application Form, issued on the day of counseling and submit it to the Member Secretary, Hostel Committee. The selected list will be finalized by 'Hostel Admission Committee' and approved by 'The Head of Institution'. All the admitted candidates to the hostels have to furnish an undertaking of not resorting to ragging in the hostels and the Institute. A student must remember that the hostel is the home of the students in the Campus and so is expected to behave in such a manner as to bring credit to oneself and to the Institution. The following rules have to be followed by all students residing in the hostels. Violation of hostel rules will make students liable for disciplinary actions including expulsion from the hostel.

- 1) Each student must occupy the room allotted to him/her for the session by the warden and no change of room shall be made without his/her permission.

- 2) No student shall keep any unauthorized person in his/her room.
- 3) In the event of mischief/foul play or accident etc. the warden can break open the room for investigation.
- 4) Whenever the student proposes to leave station or to remain outside the hostel for the night, he/she should obtain prior permission of the warden.
- 5) No female visitor is allowed to enter the boys' hostel and male visitor in girls' hostel without the written permission of the respective warden.
- 6) Students are forbidden to utilize the hostel staffs as privates or abuse them in any way.
- 7) Electric stoves, room heaters or other electric appliances are not allowed in the hostel.
- 8) Strictly forbidden in the hostel are:
 - *Possession or use of alcoholic beverages.
 - *Possession or use of addictive or hallucinogenic drugs.
 - *Possession or use of firearms/explosives or any lethal weapons.
 - *Gambling
 - *Playing cards
 - *Loitering around unnecessarily.
- 9) Ragging in any form is strictly prohibited in the hostel room and compound. Ragging is a symbol of immaturity. To eliminate such incidents students of the first year are urged not to visit other hostels without the Warden's permission.
- 10) Cleanliness of the rooms is to be maintained by the student himself.
- 11) Hostel students are not allowed to use motorized vehicles inside the Campus.
- 12) Students should carry their Identity Card all the time and to produce the same whenever demanded by the authority.
- 13) Parents are especially requested to guide their ward so that their ward doesn't indulge in any physical violence.
- 14) Any point/issue not covered by these rules shall be decided by the Director.

All the students admitted into the hostels have to submit an affidavit provided in CIT admission website within one month from the date of hostel admission.

20 APPLICATION FEES:

Candidates applying for admission have to pay Rs.1500/- (rupees one thousands five hundred only) for GEN/OBC and Rs.750/- (rupees seven hundred fifty only) for SC/ST/PWD candidates. The application fees is not refundable.

21. GUIDELINES FOR FILLING OF APPLICATION FORM.

Please read carefully the instructions given in this section before filling in the Application Form. Any violation of the instruction may make your application invalid. Incomplete application form will be rejected.

21.1 Important Terms.

Permanent Residence Certificate (PRC): All the candidates have to produce a Permanent Residence Certificate (PRC) issued by a competent authority. It is on the basis of this that admission would be granted and placed in the appropriate region which consists of BTAD, NE (Outside BTAD) or All India. If discrepancies are found in the region quoted by the candidate in the application form and that furnished in the certificate then the admission will stand cancelled. This certificate is a must and without it admission will not be done.

Caste Certificate: The candidates belonging to Scheduled Tribe (ST), Scheduled Caste (SC) and Other Backward Classes (OBC) must produce a Caste Certificate issued from such a competent authority as District Magistrate, SDO (Civil), etc. This certificate is a must during the counselling and without it admission will not be done.

Medical Certificate: The medical certificate is to be obtained from a govt. medical doctor after a general checkup which should state that the candidate is fit to undergo a rigorous technical education and training and that there is no serious illness which would impede the normal attendance and study. A separate medical certificate from an eye specialist is to be obtained who would certify the fitness of the candidate with regards to eye sight.

Gap Certificate: If there is a gap period between the year of passing of qualifying examination and the year of admission then the candidate has to show a Gap Certificate issued by a competent authority in which the candidate was engaged during this period of stay. Such an authority may be the head of an institution if the candidate was doing a course, head of an organization if employed or a court affidavit mentioning the reasons for the gap period.

21.2 Important Codes and Code numbers.

(i) Entry Scheme.

Entrance	Code	Code Number
M.Tech (GATE)	CITGATE	20
M.Des. (CEED)	CITCEED	21

(ii) Region of Permanent Residence.

Region	Code	Code Number
All India (excluding NE & BTAD)	AI	1
North Eastern (excluding BTAD)	NE	2
Bodoland Territorial Autonomous Districts	BTAD	3

(iii) Reservation Category.

Reservation Category	Code	Code Number
General	GEN	1
Other Backward Classes	OBC	2
Scheduled Castes	SC	3
Scheduled Tribes	ST	4
Person with Disability	PWD	5

(iv) Nationality.

Nationality	Code	Code Number
Indian	IND	1
Non-Indian	NIN	2

Note: Amendment and modifications will be updated from time to time as necessities arises.