

# **INFORMATION BOOKLET**

***DEPARTMENT OF APPLIED ELECTRONICS AND  
INSTRUMENTATION ENGINEERING***

***Courses offered***

***B.Tech in Instrumentation Engineering***

***M.Tech in Instrumentation and Control Engineering***

***Under***

***Assam Science and Technology University***



**GIRIJANANDA CHOWDHURY INSTITUTE OF  
MANAGEMENT AND TECHNOLOGY**

**HATKHOWAPARA, AZARA**

**GUWAHATI-781 017**

**ASSAM-INDIA**

## 1. About GIMT-Guwahati

Girijananda Chowdhury Institute of Management and Technology, Guwahati (GIMT-G) is the first institute offering degree-level technical courses in the State of Assam in the Non-government sector. The Institute was established at Guwahati, in the year 2006 with a vision to produce competent, disciplined and quality engineers and administrators having the drive, skill and confidence to become the pioneers of tomorrow. The Institute has been established with approval from the All India Council for Technical Education (AICTE), New Delhi and is affiliated to Gauhati University, Guwahati, and to Assam Science & Technology University, the newly created university by the Government of Assam.

GIMT-G is conveniently located five kms to the east of L.G.B. International Airport, Guwahati and 16 km to the west of Guwahati Railway Station. GIMT-G has a total campus area of 6.94 acres with total built-up area of 20,000 sq. m. The Institute has more than 600 computers and has 60 numbers of full-fledged laboratories, equipped with modern equipment and instruments. It has strength of 130 full-time faculty members comprising Post-graduates and Doctorates involved in mentoring of the students. GIMT-G has set its goal to be a leader in providing quality education and training in Engineering & Management. The students of B.E., M.C.A., M.B.A programmes have also been able to bag a sizeable number of ranks in the University examinations.

The Different Programs of GIMT-G are-

Bachelor degree programmes

- i. Applied Electronics and Instrumentation Engineering,
- ii. Electronics and Communication Engineering,
- iii. Mechanical Engineering,
- iv. Electrical Engineering,
- v. Computer science and Engineering,

vi. Civil Engineering.

Masters degree Programmes

- i. Master of Business Administration (MBA)
- ii. Master of Computer Applications (MCA)
- iii. Master of Technology (M.Tech)- Computer Science and Engineering,  
Instrumentation and Control Engineering,  
Electronics and Communication Engineering,

## **2. Department of AEI**

The Department of Applied Electronics and Instrumentation Engineering (AEI) was started in September 2006. The curriculum covers core subjects of basic sciences, humanities and technology besides vital aspects of electrical engineering, electronics and computer science with particular emphasis on Applied Electronics and Instrumentation. The students enrich their learning experience through practical/Seminars/Industrial Training/Projects. The motto is empowerment through quality education.

## **3. VISION**

To produce globally competitive engineers and technocrats with concern for the society and environment

## **4. MISSION**

- To provide high quality education along with modern facilities
- To enable the faculty members to achieve the goals of the department
- To encourage research and development activities relevant to the needs of the department and the community in and around the institution.
- To promote industry-institution partnership

- To promote a conducive environment in the department so that the students embed professional values and ethical behavior.

## **5. PROGRAMME EDUCATIONAL OBJECTIVES**

### **5.1 Physical Resource:**

To produce latest hardware and software products to upgrade the facilities in laboratories for meeting the following goals:

- 5.1.1 To undertake curricular and co-curricular activities
- 5.1.2 To undertake R&D consultancy projects by the department
- 5.1.3 To undertake higher or advance research work relevant to the profession

### **5.2. Higher Studies and Research:**

- 5.2.1 To provide students with a sound foundation in the mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyze engineering problems and prepare them for Post-graduate studies
- 5.2.2 To provide value added programs to develop abilities for seeking admissions in PG and PhD Programs in Indian as well as in foreign universities

### **5.3. Employability Skills:**

- 5.3.1 To ensure that the faculty members and the other employees demonstrate professional behavior as role models of the students
- 5.3.2 The department will ensure to integrate development of technological and communication skills of the students

5.3.3 To ensure that the faculty members and students use innovative methods of self-learning to inculcate and nature lifelong learning skills

#### **5.4. Personality Development:**

5.4.1 To ensure that faculty members, staff and students practice behavior related to time management, self- discipline, positive attitude, integrity and so on

5.4.2 To organize departmental seminars on themes such as innovation in technology and to assess the student's capability of delivering the technical content

5.4.3 The department will ensure to adopt the approach of self-development groups for developing the personalities and competencies of faculty members and students

#### **5.5 Social Responsibilities:**

Department will try to organize socializing activities such as

5.5.1 Interdepartmental seminars

5.5.2 Official picnics

5.5.3 Annual function for faculties

5.5.4 Engineering model exhibition under the guidance of faculties

5.5.5 Interactive sessions with the experts from different fields

#### **5.6. Career Preference:**

The department expects that the graduates of this program are likely to contribute excellence in the following sectors:

5.6.1 Integrated circuit design

5.6.2 Embedded system design

5.6.3 Process control industries

5.6.4 Higher education

5.6.5 Entrepreneurship

## **6. PROGRAMME OUTCOMES (POs)**

The students need to attain the following Programme Outcomes (POs):

- i. Ability to apply the knowledge of mathematics, science and engineering,
- ii. Ability to design and conduct experiments, also analyze and interpret data,
- iii. Ability to design a system, select the components and process to meet the desired goal within the realistic constraints such as economic, environmental,, social, political, ethical, health and safety, manufacturability and sustainability,
- iv. Ability to apply engineering and management principles individually or in a team in a multidisciplinary environment,
- v. Ability to identify, formulate and solve engineering problems,
- vi. Exhibit professional and ethical behavior,
- vii. Acquire effective communication skills,
- viii. Understand the impact of engineering solutions in global, economic, environmental and societal contexts,
- ix. Appreciate the benefits of time management and life-long learning,
- x. Apply modern techniques, resources and, engineering and IT tools in the solution of engineering problems
- xi. Keep abreast with contemporary knowledge, issues and technological developments ( techniques, skills and tools).

## **7. COURSE OFFERED:**

### **B Tech (Instrumentation Engineering)**

Duration of Course: 4 years (8 semesters)

Approved intake: 30 at 1<sup>st</sup> semester level plus 6 at 3<sup>rd</sup> semester level through lateral entry for diploma passed students.

Eligibility: Class 12 passed (at one sitting) with PCM 45% for General/OBC and 40% for SC/ST, 60% at Diploma level for Lateral entry candidates.

### **M.Tech. (*Instrumentation and Control Engineering*)**

Approved intake: 18 at 1<sup>st</sup> semester level

Eligibility: B.E. in Electronics and Instrumentation Engineering, Instrumentation Engineering, Electronics and Communication Engineering, Electrical Engineering or any related branches of Engineering from AICTE recognized institution.

Duration of course: 2 years (4 semesters)



***All Courses of Applied Electronics and Instrumentation Engineering are approved by AICTE and affiliated to Assam Science and Technology University (ASTU), a Technical University of Govt. of Assam approved under the Assam Science and Technology University Act 2009***

## 8. PEOPLE OF AEI DEPARTMENT

### 8.1 Teaching Faculty Profile

<p><b>Dr. Pradip Kumar Bordoloi</b></p> <p><b>Senior Professor</b></p> <p><b>B.E (AEC), M.Tech (IITB), Ph.D (Manchester University, UK)</b></p> <p><b>Former professor (EE dept, AEC), Former HoD (Energy dept., TU)</b></p>	
<p><b>Dr. Sandip Bordoloi</b></p> <p><b>Assistant Professor and HoD (i/c)</b></p> <p><b>B.E. (IE), AEC, M.Tech (Bio Elec), TU, Ph.D (ADBU)</b></p>	
<p><b>Ms. Ritushree Dutta</b></p> <p><b>Assistant Professor</b></p> <p><b>B.E. (AEI), GIMT, M. Tech (E. Dgn), TU</b></p>	
<p><b>Ms. Sushmita Ganguly</b></p> <p><b>Assistant Professor</b></p> <p><b>B.E. (AEI), GIMT, M. Tech (E. Dgn), TU</b></p>	
<p><b>Mrs. Karabi Deka</b></p> <p><b>Assistant Professor</b></p> <p><b>B.E. (AEI), GU, M. Tech (Energy), TU</b></p>	



<p><b>Ms. Munmi Dutta</b></p> <p><b>Assistant Professor</b></p> <p><b>B. E. (AED), GIMT, M. Tech (ECT), GU, pursuing Ph.D</b></p>	
<p><b>Ms. Chayashree Patgiri</b></p> <p><b>Assistant Professor</b></p> <p><b>B. E. (AED), GIMT, M. Tech (ECT), GU, pursuing Ph.D</b></p>	

## 8.2 Laboratory Staff

<p><b>Mr. Rituraj Phukan</b></p> <p><b>Laboratory Instructor</b></p> <p><b>J.E (POW, Jorhat), B.E. (IE), JEC</b></p>	
<p><b>Ms. Jikumoni Borgohain</b></p> <p><b>Laboratory Instructor</b></p> <p><b>J.E. (Instrumentation), POW, Jorhat, Pursuing AMIE</b></p>	
<p><b>Mrs. Leena Choudhury</b></p> <p><b>Laboratory Instructor</b></p> <p><b>J.E. (ETC), RGP, Golaghat , Post Diploma (Mechatronics), IDEMI, Mumbai, Pursuing AMIE</b></p>	

**Mr. Tridip Roy**

**Laboratory Assistant**

**Diploma in Consumer Electronics, TU**



## 9. FACULTY PUBLICATION

<b>PAPER PUBLISHED IN</b>	<b>NATIONAL</b>	<b>INTERNATIONAL</b>
<b>Journal</b>	12	20
<b>Conference</b>	10	13

## 10. LABORATORIES UNDER AEI

- i. The Network Theory laboratory
- ii. The Electronic devices and Circuits laboratory
- iii. The Digital electronics and Logic design laboratory
- iv. The Transducer and Sensor laboratory
- v. The Power Electronics laboratory
- vi. The Electrical Measurements laboratory
- vii. The Control System laboratory
- viii. The Numerical methods and Computation laboratory
- ix. The Optical fibre Instrumentation laboratory
- x. The Project laboratory
- xi. Industrial Instrumentation laboratory
- xii. Process Control laboratory

## 11. SOME COMPANIES OUR GRADUATES ARE PLACED



## 12.0 CONTACT INFORMATION

- i. Mr. Sandip Bordoloi  
Assistant Professor and HoD (i/c), Department of AEI  
GIMT-Guwahati  
Phone no: +91-98645-04431  
Email Id: [aei.gimt.guwahati@gmail.com](mailto:aei.gimt.guwahati@gmail.com)

### ii. Institute contact Information

#### GIRIJANANDA CHOWDHURY INSTITUTE OF MANAGEMENT AND TECHNOLOGY (GIMT)

**Address**           Hathkhowapara, Azara, Guwahati - 781017  
Assam, India  
**Phone :**           0361-2843404 / 2843507  
**Fax :**             0361-2843506  
**E-mail :**          [gimt\\_guwahati@rediffmail.com](mailto:gimt_guwahati@rediffmail.com)  
**Website :**        [www.gimt-guwahati.ac.in](http://www.gimt-guwahati.ac.in)

### Directional Map of Department of AEI



# AEI Snippets

