

# ANNA UNIVERSITY MIT CAMPUS











#### A PROFILE OF THE

DEPARTMENT OF RUBBER AND PLASTICS TECHNOLOGY
MADRAS INSTITUTE OF TECHNOLOGY CAMPUS
CHROMEPET, CHENNAI 600044

#### THE LEGACY AND TRADITION

- ➤ College of Engineering, Guindy (CEG), started as a survey school in the year 1794, is one of the most ancient of India's professional training schools. In the year 1920, the college was shifted to its present campus at Guindy
- Alagappa College of Technology (ACT) was established in the year 1944 and post graduate programmes and research activities in Chemical Engineering were initiated in the year 1947 itself
- Madras Institute of Technology (MIT), established in 1949, was the first institute in India to offer programmes in Aeronautical Engineering, Automobile Engineering, Electronics Engineering & Instrumentation Engineering
- > School of Architecture and Planning (SAP) was started in 1957, offering B.Arch programme. Later, the MTP and M.Arch programmes were added on

#### ANNA UNIVERSITY – THE PIONEER IN TECHNICAL EDUCATION

- Anna University was established on 4th September 1978 as a unitary type of University by amalgamating the College of Engineering Guindy, Alagappa College of Technology, Madras Institute of Technology and School of Architecture and Planning all internationally renowned Institutions in Chennai
- In 1978, it was one of the earliest Technological Universities in India for Engineering, Technology and Applied Sciences. Doctoral level research work was initiated in more than thirty fields of specialization
- Since December 2001, Anna University Chennai has emerged as an affiliating University with all the Engineering Colleges in Tamil Nadu in its academic fold
- In a short span of time the University has reached high standards in higher education and well recognized world-wide in Engineering, Technology and Applied Sciences
- The University has been retaining consistently within top 25 ranks by national level ranking agencies such as NAAC and NIRF

#### MADRAS INSTITUTE OF TECHNOLOGY – THE UNIQUE INSTITUTION

- Madras Institute of Technology (MIT) was established by the visionary Shri C.Rajam in July 1949 with the objective of providing engineering education in specialized fields in the early years of Indian Independence
- It was a bold and unique move from the founder to launch new specializations in Engineering such as Aeronautical, Automobile, Electronics and Instrumentation while many institutions were primarily offering conventional engineering courses such as Civil, Mechanical and Electrical Engineering at the undergraduate level
- The Institution has, over a period of seven decades, produced a breed of finest Engineering professionals who have contributed significantly to the Development of Indian space and Defence programmes apart from Industrial Development and other critical needs of India
- ➤ The Institution has also produced a good number of entrepreneurs who have provided leadership in establishing cutting edge technology for the benefit of the country and society at large

#### **RUBBER & PLASTICS TECHNOLOGY - A NEED BASED PROGRAMME**

- Following the traditions of MIT and Anna University in offering unique and need based Engineering programmes, the Department of Rubber and Plastics Technology was established in 1988 to offer a three year B.Tech. programme in Rubber Technology with guidance from organizations like AIRIA and IRI
- ➤ The three year B.Tech programme was converted into a four year one from 1996 onwards and re-christened in 2000 as Rubber and Plastics Technology with the objective of imparting technical knowledge in Rubbers, Plastics and Composites
- From 2010 onwards, the Department has been offering an M.Tech. programme in Rubber Technology with students predominantly having undergraduate degrees in Mechanical Engineering and Polymer Technology
- ➤ Both B.Tech. and M.Tech. graduates of the Department are well received by Rubbers, Plastics and Automotive Component Industry in India. Some alumni are also doing very well as entrepreneurs and many others are shining very well after their higher studies both within India and abroad
- > The Department has also been actively involved research activities and guided many scholars to receive their Ph.D Degrees

#### **OUR RESOURCES**

- The Department gets bright students admitted from Tamil Nadu for its B.Tech. and M.Tech programmes through the single window admission system followed by Anna University and according to TN state Government admission policies
- The curriculum for both B.Tech. Rubber and Plastics Technology and M.Tech Rubber Technology programmes have been designed in a balanced manner reflecting the current and emerging needs of the Industry and society at large
- The Department has got well qualified faculty members, most of them having Doctoral Degree and supported by efficient technical and administrative staff
- Rubber and Plastics Industries and Institutions actively involve and support the Department and interactions and cooperation between the two sides have always been mutually beneficial

#### **OUR INFRASTRUCTURE**

The Department has sufficient infrastructure facilities in terms of equipments and machinery to impart relevant practical training in Rubber and Plastics Technology. Students are trained in the Synthesis and Characterization of Polymers, Plastics Processing, Rubber Processing, Plastics and Rubber Testing, Design of Products, Moulds, Dies and Computer aided Design. The following is the list of Major Equipments and Laboratories available for training students and research activities:

- Mixing mills, Hydraulic Presses, Kneader, Rubber Extruders
- > Extruders and Injection Moulding Machines for plastics
- Rubber Processability Analyzer
- ➤ Mooney Viscometer, Moving Die Rheometer
- Fatigue to Failure Tester and Goodrich Flexometer
- ➤ UTM for Testing Plastics, Rubbers and Composites
- Rubber and Plastics Processing Laboratories
- Plastics and Rubbers Testing Laboratories
- Composites Laboratory
- Product Design and Development lab
- Polymer Science Lab

## Apollo, CEAT, TVS, ATG, Emerald Tyres Reliance Industries Ltd., Rubber

Internships/In-plant Training

Board

Rane Brake Lining Ltd., JK Groups

Exxonmobil, Anabond, Polyhose, SRF limited, Michelin

Motherson Automotives,

Jayashree Polymers, Roop polymers

Bridgestone Tyres, Fenner(India)

3M India Ltd., Harita Feher, IITs etc.

Computer Central workshop and Other Central facilities available in Anna University

#### **OUR LABORATORY INFRASTRUCTURE**



**Plastics Processing Lab** 



**Rubber Processing Lab** 



**Plastics Testing Lab** 



**Rubber Testing Lab** 



**Polymer Science Lab** 



**Composites Lab** 



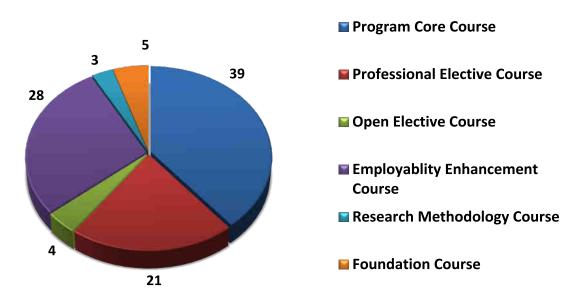
Product Design and Development Lab



### **Curriculum - B. Tech. Rubber and Plastics Technology #**



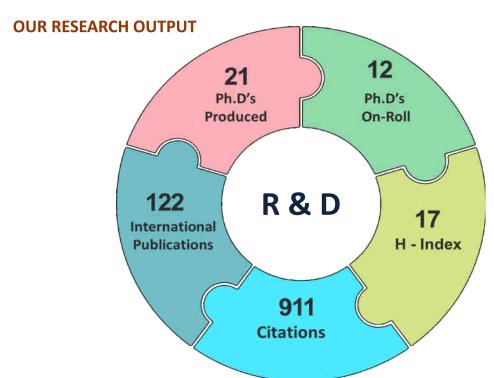
#### **Curriculum - M. Tech. Rubber Technology**



#### **OUR RESEARCH INTERESTS**

The research focus of the Department has always been that of inter-disciplinary nature. Faculty members have been involved in taking up sponsored research projects and have specialized in the following areas:





#### **OUR RESPONSIBILITIES**

- Apart from teaching and research, the Department has been conducting various extension activities for knowledge dissemination to specific target groups
- ➤ The Department has organized many National conferences and seminars on various aspects of Rubber, Plastics and Composites Technology
- ➤ The Department organizes FDP programmes for Engineering College teachers, Courses for personnel working in Rubber and Plastics Industries and has conducted training programmes for unorganized sectors
- ➤ The Department has been creating awareness among the public on the benefits of judicious use of plastics and their safe disposal
- Faculty members of the Department participate and present research papers in many International and National events

#### **OUR PARTNERS IN DEVELOPMENT**

For research and developmental activities, the Department has received financial assistance and other supports from GOI agencies such as DST, Ministry of Environment and Forests, DRDO, UGC, AICTE and TN Government. AIRIA, IRI, IPI and Rubber, Plastics and Automotive Industries are our supporters in student's training

#### **OUR FACULTY AND STAFF**

The strength of the Department of Rubber and Plastics Technology is the dedicated team of its faculty and staff members who are constantly striving to take the Department towards excellence. Eight of the twelve faculty members have Ph.D qualifications. A team of four Professors, one Associate Professor form the core faculty while there are seven Teaching Fellows meeting the needs of the interdisciplinary nature of the academic programmes. The Department is well supported by a team of technical and administrative staff as well

#### **OUR CUSTOMERS**

Our undergraduate and post graduate students are well placed in leading Rubber, Plastics and Automotive Industries besides many MSMEs throughout the country. Following is the partial list of Industries where our students are employed

#### **PLACEMENT & HIGHER STUDIES**



#### **Higher Studies Abroad**

Florida State University	University of Waterloo	KTH, Sweden
University of Twente	University of Alberta	Technishe University
University of California	University of Florida	UMass Lowell

#### **Enterprises Established by Our Entrepreneurs**



#### **Society of Plastics and Rubber Technologists (SPART)**

- ➤ The SPART is a body comprising of students and staff members of the Department of Rubber and Plastics Technology, which constantly strives to improve the personality of all the students of this illustrious department
- ➤ It is a Unique Association which molds the aspiring students into Technical Professionals with foresighted career objectives. This forum provides opportunities for our students to improve their organizational and leadership skills
- The SPART conducts activities throughout the year. Some of the activities include Plastic Awareness Program; SMART Sessions for students, arranging guest lectures, Industrial Visits, GATE classes, Computer Aided Designing Classes etc.
- > SPART Conducts Alumni Meet every year and gathers suggestions on the development of the Department







Elastoplaz '23

**Industry Experts** 

**Industry visit** 

### **Milestones of RPT**



#### **OUR VISION**

The Department of Rubber and Plastics Technology shall constantly strive to be renowned for its academic and research excellence with professionalism and social responsibilities

#### **OUR MISSION**

The Department of Rubber and Plastics Technology is determined to

- Equip its graduates to meet the expectations of Rubber, Plastics and allied industries and professional organizations
- Expand its knowledge base in collaboration with Rubber, Plastics and allied industries and research organizations
- Emphasize on product design aspects so as to enable graduates to be innovators in the field of Rubber, Plastics and allied areas of Technology
- Enable students to become entrepreneurs
- Carry out inter-disciplinary research and development activities integrating Rubber and Plastics Technology with other Engineering disciplines

#### **OUR EDUCATIONAL OBJECTIVES**

- Graduates of the programme, with the acquired knowledge and skills in Rubber, Plastics and allied domains, will provide quality services to Rubber and Plastics industries and professional organizations
- For Graduates of the programme will be in the forefront of innovation, updating new knowledge through continuous learning, research and developmental activities
- For Graduates of the programme, by keeping pace with changing technological developments, will provide leadership to industry and research organizations

#### **OUR CONTACT DETAILS**

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