

ABOUT COURSE

Why the course on Biomedical Engineering ?

There is tremendous scope of research and project work to be carried out in the field of Biomedical and Biosimilar technologies which has direct impact on human mankind. The multidisciplinary and diverse applications demand the study of current research scenario and upcoming challenges and opportunities in this field. The topics covered through this programme are as following:

- Overview of technology and recent trends
- Signal and Image Processing
- Informatics, Algorithms in Biomedical
- Machine Learning and Artificial Intelligence in Biomedical

COURSE OBJECTIVES

- To give overview of recent trends in several aspects of Biomedical systems and technologies.
- Identification of challenges in Biomedical systems and technologies.
- To acquire insights about technological details of different research areas under Bioengineering and Biomedical systems.
- To motivate research scholars/researchers to pursue research in the field of biomedical engineering.

Expected Outcome

- Identification different research domains under Biomedical engineering.
- Overview of recent trends in engineering applications in biomedical systems and technologies.
- Being introduced with technologies, systems, devices etc. associated with biomedical requirements.

SIGNIFICANCE OF COURSE

This course will provide more insight to the participants for using/developing/researching Biomedical engineering systems, devices, methodologies through several actual case studies and recent trends.

REGISTRATION PROCESS

One can register for the course through AICTE Training and Learning (ATAL) Academy web portal only.

<https://www.aicte-india.org/atal>

There is no registration fee for the course. For certificate attendance and passing of Examination is mandatory.

RESOURCE PERSONS

The program will be conducted by eminent speakers from the renowned organizations/institutes like IIT, industries, medical fraternity, researchers from renowned organizations.

COURSE SCHEDULE

Duration : 23rd – 27th November 2020

Timing : 10 am onwards

Mode : Online mode

WHO SHOULD ATTEND THE COURSE

This course is useful for engineers of different disciplines aspiring towards research & development in the field of Biomedical Engineering and its applications. The course will be most beneficial for:

- Engineering post-graduates (M.E./M. Tech. in Electronics, Electronics and Telecommunication, Instrumentation, Biomedical Engineering)
- Aspiring researcher in the multidisciplinary streams under Biosimilar technologies and allied fields.
- Faculty members from academic and research institutions
- PhD scholars

CONTACT FOR MORE INFORMATION

Dr. Amol S. Deshpande
(Mob: 8767039787) amol_deshpande@spit.ac.in

Prof. Milind Paraye
(Mob: 8767138757) milind_paraye@spit.ac.in

All India Council for Technical Education
(AICTE) ATALAcademy

Sponsored one week Online
Faculty Development Program

On

“BIOMEDICAL ENGINEERING
SYSTEMS and TECHNOLOGIES”

23rd - 27th November 2020



Coordinator

Dr. Amol S. Deshpande

Assistant Professor

Electronics & Telecommunication Engineering
Department

Organized By

**Electronics & Telecommunication
Engineering Department**

Bharatiya Vidya Bhavan's

Sardar Patel Institute of Technology,

(An autonomous institution affiliated to University of
Mumbai)

Mumbai, Maharashtra

Telephone: 91-22-26707440 / 26287250 |

URL : www.spit.ac.in

ABOUT THE INSTITUTE



In 1957, the Bharatiya Vidya Bhavan conceived the idea of establishing an engineering college in Mumbai. It was on the 19th August 1962 that there was a huge gathering at the Bhavan's Campus in Andheri to inaugurate Sardar Patel College of Engineering (SPCE). In 1995 Self-Financed Engineering Course were added to it and it functioned as SPCE (Unaided-wing) conducting Electronics Engineering, Electronics and Telecommunication Engineering, Computer Engineering and Information Technology courses. These courses have earned a great reputation in the field of engineering education, as well as industry. Bharatiya Vidya Bhavan's Sardar Patel College of Engineering, Unaided Wing from year 2005-2006 was established in its new building under the name and style of Bharatiya Vidya Bhavan's Sardar Patel Institute of Technology and is affiliated to Mumbai University. Subsequently Electronics and Telecommunication course was started at graduate and post graduate level in the years 2006 and 2010 respectively. In addition to these programs Electronics and Telecommunication, Computer Engineering started Ph.D. program from 2012, MCA from 2016 and Electronics from 2017. University of Mumbai has conferred Autonomous Status to S.P.I.T. for a period of five years from the academic year 2017-18 to 2021-22.

S.P.I.T. Highlights :

- NBA Accredited Programmes
- Became an Autonomous Institute affiliated to University of Mumbai in 2017.
- Securing an NIRF ranking of 125 in India for 2020. For 2019 & 2018 secured NIRF rank in the band of 100-125.
- New and updated curriculum under autonomy provides flexibility for Semester long internships.
- Consistently achieving 100% placements since few years.

ELECTRONICS AND TELECOMMUNICATION ENGINEERING DEPARTMENT

The Department of Electronics and Telecommunication Engineering was established in 2005, with a dream to impart both knowledge and skills and help them gain expertise in various areas in the domain. This dream achieved a new pedestal in 2010 when the first batch of students of masters in EXTC Engineering started its academic career. The department is currently scaling new heights with the launch of a Ph.D program since 2012.

OBJECTIVES OF AICTE ATAL ACADEMY

- To set up an Academy which will plan and help in imparting quality technical education in the country
- To support technical institutions in fostering research & innovation and entrepreneurship through training
- To stress upon empowering technical teachers & technicians using Information & Communication Technology
- To utilize SWAYAM platform and other resource for the delivery of trainings
- To provide a variety of opportunities for training and exchange of experiences such as workshops, Orientations, learning communities, peer mentoring and other faculty development programs.
- To support policy makers for incorporating training as per requirements

PATRON

Dr. Shesha Iyer	Chairman, BoG, S.P.I.T
Dr. B. N. Chaudhari	Principal, Sardar Patel Institute of Technology
Dr. Y. S. Rao	Vice Principal, Dean R&D, Sardar Patel Institute of Technology

ORGANIZING COMMITTEE

Dr. Reena Sonkusare	Dy. Head, Electronics & Telecomm. Engg Dept.
Dr. Amol S. Deshpande	Course Coordinator
Prof. Dayanand Ambawade	Course Co-Coordinator
Prof. Milind Paraye	Course Co-Coordinator
Prof. Sneha Weakey	Course Co-Coordinator

COURSE CONTENTS

- Recent Trends in Biomedical Engineering
- ML & AI in Biomedical Engineering
- Biomedical Imaging and Image Analysis
- Biomedical Image Reconstruction
- Biomedical Signal Analysis
- Technologies in Biology and Medicine
- Biomedical Robotics
- Biomedical Sensors
- Plasma Applications in Biomedical Engineering