VIT Vidyalankar Institute of Technology
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# MEDITRONICS

## DEPARTMENT OF BIOMEDICAL ENGINEERING

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**Vision of the Department**

To be a globally recognized centre of excellence in the field of biomedical engineering where learners are nurtured in a scholarly environment to evolve into competent professionals to benefit society

**Mission of the Department**

- Evolve a curriculum which emphasizes on strong engineering fundamentals with the flexibility to choose advanced courses of interest and gain exposure to tools and techniques in Biomedical Engineering.
- Encourage a teaching-learning process in which highly competent faculty share a symbiotic association with the institutes of repute.
- Facilitate creation and dissemination of biomedical engineering knowledge through a digitally-enabled learning environment.
- Develop academic and infrastructural facilities with modern equipment and other learning resources and encourage reciprocal sharing with other institutes through networking.
- Establish a centre of excellence to enhance academia – biomedical industry partnership and work on collaborative projects.

**Programme Educational Objectives (PEO)**

- To enable the pursuit of knowledge in the field of Biomedical Engineering and contribute to the profession and employability of the students.
- To engage in research, generate the employment through entrepreneurship and work effectively in multidisciplinary environment.
- To understand the human, social, ethical and environmental context of their profession and contribute positively to the needs of individuals and society.

## WHAT'S INSIDE



## PROF. DR. JITENDRA TORAVI

HEAD OF DEPARTMENT, BIOMEDICAL ENGINEERING

Hello Everyone,

I would like to welcome my students and faculty to new semester. Your academics will start from second week of July 2022.

As all of you are aware that our Institute has got Autonomous Status by UGC starting from Academic Year 2022-23. This semester onwards our academic will be completely in Offline Mode, all students are requested to make a note of it.

We have planned couple of activities in coming semester like Visit to Cancer Research Centre in collaboration with Society for Radiation Research (SRR), Summit on, “Entrepreneurship opportunities in Biomedical Engineering” and Workshop (Hands on training) on Life Saving Techniques, Cardiopulmonary Resuscitation (CPR)- in collaboration with Hinduja Hospital, Mumbai. Students and Faculty members are expected to participate in all these events with full spirit.

Thank you

> All of us do not have equal talent. But, all of us have an equal opportunity to develop our talents.
> -Dr. A.P.J. Abdul Kalam

## Career Counselling Event-MS in USA by Ishan Vatsaraj

A webinar was conducted on the topic "MS in USA" to educate our students regarding nature of planning, processes, exams and efforts needed to secure an admit into US universities. The webinar was conducted by Mr. Ishan Vatsaraj (2022 Batch) and coordinated by Prof. Komal Lawand of the department for the Career Counselling Committee (CCC) of the Institute. The webinar was conducted on 18th June 2022 and attended by students of Third Year and Final Year, Biomedical Engineering.

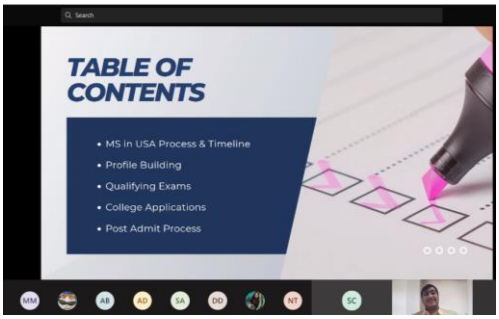
The webinar was outlined on following contents

- Content of the session
- MS in USA Process & Timeline
- Qualifying Exams
- Profile Building
- College Applications
- Post Admit Process

Mr. Ishan shed light on the kind of background preparation one should do in order to select the subject of interest, application process, writing statement of purpose (SOP) with a vision, letters of recommendation (LOR) where selection of correct people matter, Entrance exam score and their importance and financial aid provided to the students. Towards the end of the webinar a robust Q&A session was held in which many queries of students were successfully resolved. The session was concluded by vote of thanks by Prof. Avinash Shrivas, Convener-CCC.

Attendees could get insights of:

- The Different aspects for application and preparation process of MS to get admit from dream university.
- Profile building for stream selection in MS, SOP preparation and collecting LOR from appropriate people.
- Best practices to be followed while applying for various universities for pursuing MS  MS in USA Process & Timeline.




## Department Staff

### PROF. HARISH OJHA
ASSISTANT PROFESSOR

**EDUCATION QUALIFICATION:**
M.TECH. ELECTRONICS ENGINEERING

**TEACHING EXPERIENCE:**
12 YEARS

**AREA OF SPECIALIZATION:**
ELECTRONICS DEVICES & CIRCUITS
COMMUNICATION ENGINEERING
IMAGE PROCESSING
VLSI DESIGN

### PROF. PRIYANKA SHRIVASTAVA
ASSISTANT PROFESSOR

**EDUCATION QUALIFICATION:**
ME-EXTC

**TEACHING EXPERIENCE:**
11 YEARS

**AREA OF SPECIALIZATION:**
SIGNALS AND SYSTEMS
CONTROL SYSTEMS
REHABILITATION ENGINEERING
LOGIC CIRCUITS

## Higher Studies Update (2022 Batch)

Ishan Vatsaraj
John Hopkins
M.S.

Sanika Thakur
Northeastern Uni.
M.S.

Vedant Shirsekar
IIT Bombay
M.Tech

Mamta Padmashali
IIT Madras
M.Tech

Jay Hegshetye
IIT Madras
M.Tech

## Know an Alumna

### Ms. Pranita Mahajan (2010 Batch)

**Pranita Mahajan is an alumna of VIT , passed out in the year 2010 from the Biomedical Engineering Department.**

I consider myself lucky for being the part of VIT. I have been working in the healthcare industry for past 10 years, started my career as Jr. Biomedical Engineer with Jupiter Hospitals and then further progressing to Head of Biomedical Department at Apollo Hospitals. The journey from beginner to professional was learning and challenging. Every day was a fresh day with new obstacles and challenges which I tackled very wisely

My overall experience is into technical and repairs of medical devices, projects for medical devices planning, procurement, installation, and operations management of Biomedical Department.

We were the first batch to pass-out from the college, it was a good learning and knowledge sharing education curriculum rather than typical lectures. All the professors are knowledgeable and supportive they guide students at every point which makes the learning very interactive and enjoyable. We had internship as part of course structure in semester 7 and our professors along with placement cell has played a major role to ensure each student of the Biomedical department is getting placed for internship so as they will gain as much practical knowledge as possible.
College has always been a supporter for students and encourage them for conducting and participating in technical and cultural festivals, educational tours, internships and placements. College faculties focus on the student's strengths and weakness and inspired them to overcome it and focused majorly on self-development.

I would say you all have taken a good decision by enrolling yourself in VIT for four years Biomedical engineering program. Make use of the facility and the faculty to the fullest. During your course tenure make sure you are getting involved in most of extra-curricular activities which helps to build your personality. Make sure you undertake internships, attend webinar sessions, interact with past alumni of the department and Enrol for short term certificate courses. Explore different verticals of healthcare like projects and hospital planning, medical coding, medical regulatory affairs, operations management and many more, this will help for your career growth.

In case of any help, you can reach me through mail: pranita.mahajan@yahoo.in

STUDENT ARTICLE

## “AI in Healthcare“
## Ms. Ayushi Tanna (T.E. Biomedical)

Artificial Intelligence has consistently pushed the boundaries of human capability by allowing near-infinite amounts of information and valuable data regarding the best possible applications of said information to be accessible at the tap of a finger or even the command of one’s voice. Without taking away from the cognitive ability of the average human, AI manages to add to our own thought pattern by providing essential input we may not have considered. Even the smallest activities nowadays are instantly easier thanks to the helpful nudge in the right direction that a helpful AI provides.

Now imagine if that same technology was used to help nurses, doctors, surgeons and every other healthcare worker on the planet. Countless suggestions, definitions, strategies and other information could be accessible in a flash, allowing the brave warriors in the healthcare field to save more lives and come up with more ground-breaking medical innovations and techniques in their field.

Whenever someone is in danger and cannot call an ambulance themselves, their AI saves their life by noticing the pattern of events and dialing a helpline. Anytime a doctor is demonstrating a surgery for his protégés while performing it, he doesn’t need to worry about breaking down each step himself as he goes along. Any time a patient feels odd, a nurse or doctor can be alerted quicker than usual, seeing as how even a single second can cement someone’s fate in a hospital.

And these are just a few of the possibilities that an expertly programmed AI that is given adequate time to learn and test its knowledge can conjure into reality if introduced into the healthcare field. Obviously, it will take another decade or so for such a landscape to materialise into a tangible reality, but the future is hopeful, and modern-day scientific milestones can help pioneer the future’s science fiction.

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## EDITORIAL TEAM

PROF. ARUNKUMAR RAM
Chief Editor