



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.

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PROF. DR. JITENDRA TORAVI

HEAD OF DEPARTMENT, BIOMEDICAL ENGINEERING

Hello Everyone,

First of all I would like to wish a very happy new year to all our readers. Wishing you all a very healthy and a productive year 2023. I welcome all my students and faculty to a new semester Even 2022-23.

This semester there are many activities planned for students and faculty that will keep them engaged and enrich their knowledge. To name few we have our annual technical festival 'Impulse' in the month of February. One day workshop on Artificial Intelligence and Robotics is arranged in the month of March and couple of visits to Industry and Hospitals in the month of April.

Orientation programme of the even semester 2022-23 is scheduled in the second week of January 2023. All students are expected to attend the orientation session.

I wish all my students and faculty a great start to the year 2022-23.



“ Live as if you were to die tomorrow. Learn as if you were to live forever.
-Mahatma Gandhi ”

“Odyssey-A New Journey” Welcoming First Year Biomedical Engineering Students

All of the newly admitted First Year students of the Biomedical Engineering Department attended a welcoming ceremony hosted by the BMSA-VIT Chapter. The event was open to all first-year biomedical students as well as department faculty. The event took place on December 7, 2022. Ms. Khushbu Rathod, the Creatives Head of BMSA-VIT, and Ms. Sania Ayare, the Events Co-head of BMSA-VIT, served as the event's hosts.

The purpose of the event was to inform the students about the academic aspect of the course, the courses our department offers, its teachers, its accomplishments, and its alumni who have achieved success in their fields after graduating from VIT. The audience was also informed about the existence of professional bodies within the department, majorly BMSA-VIT and BMESI-VIT Chapter. A few games and challenges were added to this event to add to the flexibility and laid-back environment in the room, which helped the first-year students feel relaxed and at ease. The event was concluded with a formal vote of thanks and was very well received by the students.



Department Staff

DR. GAJANAN NAGARE
PROFESSOR AND INTERNSHIP HEAD



EDUCATION QUALIFICATION:
PHD-BIOMEDICAL ENGINEERING

TEACHING EXPERIENCE:
11 YEARS

RESEARCH EXPERIENCE:
17 YEARS

AREA OF SPECIALIZATION:
BIOMEDICAL INSTRUMENTATION
BIOSENSORS
BIOMEMS

PROF. GEETHA NARAYANAN
ASSOCIATE PROFESSOR



EDUCATION QUALIFICATION:
MTech-POWER ELECTRONICS

TEACHING EXPERIENCE:
28 YEARS

AREA OF SPECIALIZATION:
VLSI
DIGITAL IMAGE PROCESSING
ROBOTICS IN MEDICINE

E-Summit: Jointly organized by BMESI and BMSA Chapters

An E-Summit was jointly organized by the BMESI and BMSA student chapters of the departments. It was a six-day event consisting of mind-boggling session on the theme of entrepreneurship in healthcare domain. The event was coordinated by the faculty conveners Prof. Geetha N., Prof. Priyanka S and student coordinators. The event was conducted from December 10, 2022 to December 18, 2022.

The E-Summit started with a workshop on 'Toolkit to Design Your Unicorn' the speaker for this event was Mr. Anshav Jain, Founder and Managing Director at Bringle UK and India. Second session was a seminar on 'Business Model Canvas: Introduction to the Blockchain' the Speaker for this event was Mr. Ankit Jhaveri. Third session was a seminar on 'Entrepreneurship vs Business' conducted by Mr. Nagesh Utekar, Managing Director at Rescare Medisys India Pvt. Ltd. Fourth session was a seminar on 'Course to Career' conducted by Mr. Tanmaya Khorgade, Director of Pace Rover Medical System.

Fifth session was a seminar on 'How to build a Startup' by Mr. Khaarvel Parakh, Partner- Customer Success at Veear Analytics. The E-Summit concluded with a final session on 'Mapping your Future' by Mr. Gajanan Ambekar, Sales Manager in Philips Healthcare.



Know an Alumnus

Mr. Ashish Jain (2013 Batch)

Ashish Jain is an alumnus of VIT , passed out in the year 2013 from the Biomedical Engineering Department.

I am currently working with Abbott as a Key Account Manager for the Core Diagnostics Business, based out of Mumbai. I closely work with the C-suite of reputed hospitals and laboratories and help them to achieve measurably better healthcare performances. I have been working in the In-Vitro Diagnostics (IVD) industry since a decade now.

A student's total personality development was also a priority for Vidyalankar's outstanding teaching staff, which included possibilities for participation in various organising committees and simple encouragement to wear formal attire on one or two days per week. Facilities like the library and reading hall, helped me a lot to prepare for the exams. The reading hall used to be my second home during the exams. The 'Step Up to Professional Excellence' program from Dale Carnegie organised by the institution helped me a lot to work on my communication skills which helped me in cracking my first interview.

I would advise the students who are currently pursuing their education to think beyond academics, network as much as possible, utilise the ample of opportunities available these days, thanks to the start up ecosystem in India, which is booming. Every lecture you attend, every interaction you have with the teaching faculty and with seniors will someday be helpful in your career, I say this from my experience. And the most important point, have as much fun as possible while doing so.

After working for 10 years, I have realised one thing, it's not what you do as per your 'Job Description' which will accelerate your career, it's what you do beyond it. Doing something more will help you differentiate yourself from others. A college degree is your gateway to a career, after that it's your skills and behaviour which defines the career trajectory. But trust me, if you do well in your academics, it will help you to start better. Try to learn something which a software may not be able to replace in next couple of decades.



STUDENT ARTICLE



“UI/UX in Healthcare”

Ms. Yadnyesha Rane (T.E. Biomedical)

Technology is changing the way to aid mankind, UI/UX is a new member in health tech and a very welcoming one as well. The health-tech sector is among the fastest-growing in the world today, making the stakes super high. Investments in healthcare AI software, hardware, and service market will reach \$34 Billion Worldwide by 2025. Here are several new technological trends emerging in healthcare being in different levels one of them is UI/UX.

There is no commonly accepted definition of UI/UX but explaining in layman terms your responsibility as UI/UX designer it makes sure that software which your user is interacting with should be easy to understand from their end. UX as a word stands for user experience which is not just restricted to apps or software but also to any physical products. UI/UX is an intersection between technology and creativity.

With the increase in digital transformation in healthcare, the need to offer a positive user experience has also grown. Modern technology in the healthcare system provides patients with better, more comfortable, and safer service. But for this to work, the technology needs to be user-friendly. User-friendliness holds the key to the success of these apps and gadgets in the long run. Henceforth, UI/UX designers and researchers are brought together to understand and work on how the app and gadgets can be well designed and solve user's problem.

UI/UX designer in healthcare does not differ from UI/UX designer from other domain but their ultimate goal is to create a positive user experience that will lead to stronger user engagement on the product or service. The only significant difference is that UI/UX designers play a significant role in helping hospitals, medical agencies, non-profits, businesses, and other healthcare institutions effectively and efficiently serve their customers and patients. Good healthcare UI/UX design can connect patients with professionals to make more informed decisions and strengthened the relationship between patient and physician, giving the patient a clear upper hand to win their fight against disease. And it can also reduce human errors via improvements in diagnosis such as better analysis of scans, images, and test results. Here are some of the examples for top 10 trends in 2022 for UX healthcare - digital products for mental health and telepsychology, medical wearables, Telehealth (Telemedicine + Remote patient monitoring), virtual and Augmented Reality, Voice User Interfaces and many more.

Various new technology is being introduced in the healthcare market, their presence and importance will continue to increase in the healthcare industry. No matter on what your product or service is focusing on, a good user experience is essential for its success and integrity in improving the well-being of people. However, the UX design itself can still make or break the experience. If you want to develop a comprehensive user experience that invites in previously underserved audiences and gives them value in the form of care options, then you must consider adaptability as well as accessibility.

THE EDITORIAL TEAM

PROF. ARUNKUMAR RAM
Chief Editor