Master of Biomedical Engineering

The principal objective of this unique, two year Master of Biomedical Engineering program is to cover the major aspects of biomedical technology and to produce engineers with the necessary skills and practical experience to satisfy the requirements in this rapidly expanding industry. The major role of a professional biomedical engineering in the workforce is to act as an agent for change through development of technically sound, economically viable and socially acceptable solutions to new and complex technical problems in the health care sector, both in acute hospital settings and in the wider provision of health care to the community. Graduates are expected to be well prepared to find employment in biomedical entities around the world.

Mohit Shivdasani - PhD, La Trobe University

"In 2004 I completed my Masters degree in Electronic Engineering with a specialisation in Biomedical Engineering and was offered a scholarship to undertake a PhD in neuroscience about the development of auditory brainstem implants at a world class laboratory, setup at La Trobe University's School of Psychological Sciences. The main focus of my research is to analyse time related mechanisms of sound processing within the brain. The ultimate aim of this project is to develop stimulation strategies for an electrical-brain interface to restore functional hearing in patients with profound hearing loss who cannot benefit from the use of a cochlear implant."

Master of Microelectronic Engineering

Microelectronics is the key enabling technology driving next generation applications across a diverse range of industries such as automotive, biotechnology and biomedical equipment, computer and information technology, consumer electronics and home entertainment, defence...
The best aspects about the Master of Microelectronic Engineering program are the resources and collaborations between the Department of Electronic Engineering and key industry partners which led me to Industry Sponsored Projects. I had the unique opportunity of working on a year long project with the leading FPGA Research Group/manufacturer in the world (Xilinx Research Labs). I believe that the valuable course content along with its industry exposure has equipped me with an unparalleled skill set. I’m currently employed at La Trobe University aiding the development of Advanced Vision Based Automotive Safety Systems. This research is part of the AutoCRC and is focused on improving vehicle safety and continually available. Major highlights of this course are:

- An integrative view and engineering principles for how mobile and pervasive computing systems can be constructed through integrating technologies.
- Practical experience projects that provide exposure to technologies and the way in which they are employed and deployed towards particular requirements.
- State-of-the-art perspectives on current industry technologies and industry trends in the mobile and pervasive computing area.
- Preparation for and critical thinking about creative uses of mobile and pervasive devices, in both emerging and growing economies, in diverse application areas.

Arun Borgio - Research Associate, La Trobe University

Master of Mobile and Pervasive Computing

Mobile and Pervasive Computing is a revolutionary paradigm for computing, where mobile device users (e.g., smartphone, Blackberry, pocketPC, etc.) interact with devices embedded in the environment over a diversity of wireless networking technologies. We are beginning to witness a new world of ubiquitous mobile computing which connects people and services at all times regardless of their proximity or location with new virtual worlds.

The combined on-user and in-environment hardware, software, and networking capabilities lead to new applications in all walks of life from security, entertainment, education, business to healthcare, which are rapidly dominating the computing scene and which will increasingly pervade the day-to-day life of the future. Many businesses, government organisations, universities and industrial computing laboratories around the world are embracing this paradigm as the future of computing.

The Master of Mobile and Pervasive Computing has been designed to provide the conceptual foundations and in-depth understanding of areas such as wireless networking, embedded computing, smart spaces, and mobile applications. Graduates will gain skills and knowledge in investigating, creating, and studying current and future systems that are pervasively and unobtrusively embedded in the environment, completely connected, intuitive, intelligently reactive, easily portable, and continually available. Major highlights of this course are:

- An integrative view and engineering principles for how mobile and pervasive computing systems can be constructed through integrating technologies.
- Practical experience projects that provide exposure to technologies and the way in which they are employed and deployed towards particular requirements.
- State-of-the-art perspectives on current industry technologies and industry trends in the mobile and pervasive computing area.
- Preparation for and critical thinking about creative uses of mobile and pervasive devices, in both emerging and growing economies, in diverse application areas.

Arun Borgio - Research Associate, La Trobe University

My Bachelor of Engineering majoring in electronics and telecommunications from I.I.T, Kanpur, India gave me a valuable foundation in computer science. After completing my Masters degree in information technology with networking specialisation at La Trobe University, I not only enhanced my knowledge in advanced telecommunication concepts but acquired valuable knowledge in computer networks, wireless networks, mobile networks and software engineering. Recently, I joined the Computer Science Corporation [CSC] in Melbourne as a network engineer.

Anand Shukla - CSC, Australia

Contact

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La Trobe University Overseas Representatives
La Trobe University has a worldwide network of representatives who can assist you with applying to study at La Trobe. See: www.latrobe.edu.au/international/agents/

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