

20. B.E. Computer Engineering (with specialization in Machine Learning and Data Analytics) has been started in 2014. It is designed for individuals who are interested in applying analytical techniques to derive insights and predictive intelligence from vast quantities of data. Graduates will have the skills to increase operational efficiency, improve financial performance and influence the strategic directions of organizations in the highly competitive world of "Big Data." The curriculum is a carefully articulated mix of courses on data, social networks, web analytics, statistics, optimization and risk management. The focus is on industry-specific applications in areas such as marketing, finance, pharmaceuticals, underwriting, manufacturing, information technology, telecommunications, energy and engineering. A unique program architecture aims to produce well-rounded graduates with strong professional, disciplinary and technical skills.

Students will gain critical skills for succeeding in today's data-intensive world, including business case study, data analysis, and making recommendations to management. They learn how to utilize database systems (SQL and NoSQL) and analytics software built upon R, Python, and SAS. They learn how to make trustworthy predictions using traditional statistics and machine learning methods. With a wide range of elective courses to choose from, students can customize their studies across a variety of data science disciplines, including marketing analytics, risk analytics, text analytics, and web and network data science.

21. B.E. Computer Engineering (with specialization in Computer Animation and Gaming) has been started in 2014. It will provide the practical skills and academic knowledge to students who enter in the field of computer animation. Designing in virtual environments, computer-aided design, modelling and game design, and through courses in 2D, 3D and experimental animations, students will learn theory and practice modern techniques and artistic applications. Drawings and illustrations are brought to life on digital video or film through the effective use of the latest software for capturing and animating hand-drawn or digitally created imagery.

The curriculum is the combination of all the courses related about of game development from visual storytelling to modelling, texturing, cinematography, character rigging and animation, to sound, user centred and game level design. This course will give the chance to students to focus on either the more artistic graphical aspects of computer animation or the more technical side, including programming and scripting. Both pathways will enable to learn about the practical and theoretical aspects of the animation industry, from traditional animation to modern 3D animation.

In addition, students can explore artistic options with practical experience and processes through experimental animation and modelling. Combining these modern theories of visual creation with digital imaging, motion capture, multimedia, computer animation and film production, graduates of this program will be prepared for various jobs in modelling and technical illustration, as well as in artistic production, exhibition, broadcast and in the fast-growing field of game design.