Digital imaging experiences for undergraduate engineering students

Kauser Jahan, John Chen, Shreekanth Mandayam, Robert Krchnavek, Beena Sukumaran, Yusuf Mehta, Jennifer Kadlowec, Paris von Lockette & Robi Polikar

Rowan University
Glassboro, United States of America

ABSTRACT: The authors’ project is an effort by a multidisciplinary team of engineering faculty members at Rowan University, Glassboro, USA, to integrate digital imaging technology (DIT) into the undergraduate engineering curriculum. It builds upon the experience and interest of faculty to promote new topics and innovative methods of teaching. The work is an effort to provide students with the skills directly relevant to the evolving needs of industry and the marketplace. Projects involve the development of a digital imaging curriculum and focus on the creation of a leading edge digital imaging laboratory/studio to facilitate the use of non-traditional learning approaches that encourage interactive learning, team building and creative problem-solving among students and instructors. A number of visual experiments are being developed and utilised to introduce students to multidisciplinary engineering principles and the use of DIT. Some of these activities will be used for K-12 outreach activities. Through these dissemination efforts, the College of Engineering at Rowan University will encourage other schools to adopt this curriculum and modules in order to enhance their undergraduate curriculum and to promote engineering education outreach opportunities.