

## TCD/UCD Innovation Alliance Lecture Series

# Product Design and Development as the Foundation for the Irish Innovation Economy: The Role of University Engineering Schools

**Dr Burton Lee**  
Innovarium Ventures & Stanford University

**PACCAR Theatre, Science Gallery, Trinity College Dublin**

6pm Wednesday 27<sup>th</sup> January 2010.

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This public lecture by Innovation Taskforce member Dr. Burton Lee will discuss the importance of product design and development as a key element of national innovation strategy and policy, and why many university engineering schools with global aspirations are today embracing product design as a foundational building block of their teaching, research and industrial collaboration programmes and missions.

Dr. Lee will also address the need to develop a robust product design and development community and capability here in Ireland, both in industry and HEIs, as a core element of Ireland's drive to improve the innovation capacity and performance of existing indigenous Irish enterprises, and as a new tool in its approach to attracting and retaining MNCs from overseas. Using examples from Stanford University's own product design programme and d.school, he will identify various approaches through which Irish engineering schools can address this issue.

As a part of this lecture, Ian Quinn, Chairman of Creganna, will present several examples of world-class medical devices being designed and manufactured by his company in Galway for the global marketplace. An Irish software industry perspective on the need to embrace software engineering as part of the increasing national focus on product design and development will also be provided.

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**Dr. Burton Lee PhD MBA:** Burton Lee's professional credentials span over 15 years of senior executive leadership and advisory positions with venture-backed startups, global technology corporations, venture capital and private equity firms, US and foreign government agencies, leading research universities and industry associations and is currently a member of the Irish [National Innovation Taskforce](#), Office of the Taoiseach.

Dr. Lee is Managing Partner of Innovarium Ventures, a strategic, financial and technical advisory services firm based in Silicon Valley. He also serves as Principal and co-founder of [Space Angels Network](#), a national network of accredited investors focused on seed- and early-stage aerospace-related ventures. He has held senior executive and research positions with Hewlett Packard, GE Global Research, DaimlerChrysler AG and NASA. Dr. Burton Lee directs Stanford Engineering's European Entrepreneurship programme and his European experience includes 10+ years of professional and academic assignments in Stuttgart (DaimlerChrysler Research Labs), Munich ([Ludwig-Maximilians-Universität München](#)), Vienna ([Bundesamt für Eich- und Vermessungswesen](#)), Geneva (IUF), Prague ([Univerzita Karlova v Praze](#)), Barcelona and London.

Dr Lee holds a PhD in Mechanical and Electrical Engineering (minor) from Stanford University (2002), and an MBA in Finance and Entrepreneurship (Cornell, 2004). His research interests include Failure Modes and Effects Analysis, diagnostics, prognostics, maintenance and customer support for complex industrial systems; product design and development, including DfX, design-for-sustainability and -environment methodologies; artificial intelligence (Bayesian networks, ontologies, knowledge representation); aerospace systems; unmanned vehicles, robotics, electric transportation systems; open innovation in mechatronic systems; and innovation policy.