

Design Thinking for Research & Innovation

Dr. Ranjana Vyas, Chief Coordinator- New Generation Innovation and Entrepreneurship
Development Centre, IIIT Allahabad (India)

Thursday 11, 10:00, Conference room, block b, floor 7

Abstract

In an era where complex societal and technological challenges demand fresh perspectives, Design Thinking offers a powerful human-centred framework to enhance both research quality and innovation outcomes. This talk introduces PhD scholars to the principles of Design Thinking—empathizing with real users, reframing problems, ideating creatively, and iteratively prototyping solutions—and demonstrates how these tools can strengthen the research process across disciplines, including engineering and biomedical sciences.

Drawing from her experience in innovation leadership and entrepreneurship development at IIIT Allahabad's NewGen IEDC, Dr. Ranjana Vyas will showcase how design-driven methodologies accelerate the journey from ideas to impactful applications. The session will highlight how researchers can integrate Design Thinking to identify meaningful research gaps, develop user-aligned solutions, and translate their work into entrepreneurial opportunities, prototypes, or early-stage ventures. Ultimately, the talk encourages scholars to adopt an innovation mindset that bridges academic inquiry with real-world value creation.

Short bio

Dr. Ranjana Vyas is an Assistant Professor of Information Technology at the Indian Institute of Information Technology Allahabad (IIIT Allahabad), Government of India, where she has been serving since July 2013. She is also the Chief Coordinator of the NewGen IEDC (New Generation Innovation and Entrepreneurship Development Centre), a major DST-funded initiative supported by the Entrepreneurship Development Institute of India (EDII), Ahmedabad, to nurture innovation-driven student entrepreneurship.

With more than 18 months of academic exposure across Europe, Dr. Vyas brings strong international research experience. She was awarded the prestigious DAAD Fellowship and worked as a Postdoctoral Researcher in the Business Intelligence Systems (BISOR) Group at the Technical University of Kaiserslautern, Germany (2010). She has collaborated with leading institutions such as the University of Rostock (Germany) and ISI Torino (Italy). She was also invited to Paderborn University (WInfo) in Germany in 2018, where she served as a Visiting Scholar and delivered a talk on 'Women in Science'.

Since 2018, Dr. Vyas has played a pivotal role in building the entrepreneurial ecosystem at IIIT Allahabad. Under her leadership, NewGen IEDC has mentored and funded nearly 60 student-led innovation projects through a ₹20 million DST-supported program, guiding many of these ideas toward early-stage start-up development. She further contributes to national capacity-

building initiatives as the Co-Principal Investigator of the Government of India's project CBDE: Capacity Building in Design Thinking and Innovation, undertaken jointly with IIITD&M Kancheepuram (2024–27).

Her academic and research interests span Entrepreneurship, Design Thinking, and Data-Driven Process Intelligence. Over the past decade, she has initiated and led numerous innovation-oriented activities—including IT entrepreneurship mentoring programs, hackathons, and academic symposiums in emerging IT domains—strengthening the institute's culture of innovation and practical problem-solving.

Dr. Vyas has also held distinguished teaching positions outside IIIT Allahabad. She has served twice as Adjunct Faculty at IIM Rohtak (2017, 2023), taught at MNNIT Allahabad (2012), and delivered a specialized teaching module in the Decision Support and Operations Research Lab. Internationally, she was invited to Bielefeld University, Germany, to teach a full semester course on Business Process Modelling in 2023, and delivered a talk on Data-Driven Process Intelligence at THM University of Applied Sciences, Germany, in 2025.

With her strong foundation in innovation, entrepreneurship development, and process-centric research, Dr. Ranjana Vyas brings a unique interdisciplinary perspective. Her work continues to inspire students and researchers to apply Design Thinking and human-centred innovation for high-impact research and real-world value creation.