



हरकोर्ट बटलर प्राविधिक विश्वविद्यालय

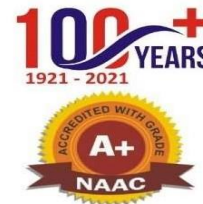
नवाबगंज, कानपुर - 208002, उ.प्र., भारत

HARCOURT BUTLER TECHNICAL UNIVERSITY

NAWABGANJ, KANPUR - 208002, U.P., INDIA

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Report on Expert Talk by Mr. Mads Mourier Date: 05 March 2025

The Department of Oil Technology, Harcourt Butler Technical University (HBTU), Kanpur, organized an expert lecture on **05 March 2025** for B.Tech. students, faculty members, and research scholars. The lecture, titled "**Enzymes: The Green Catalysts Revolutionizing Your Laundry Detergents,**" was delivered by **Mr. Mads Mourier, Director – Global Regulatory Affairs, Household Care (HHC) and Industrial Processing, Novonesis**. The objective of the expert talk was to introduce students to the role of enzyme technology in the detergent industry and its significance in developing sustainable and environmentally friendly cleaning products. Mr. Mourier explained how enzymes have transformed modern detergent formulations by replacing or reducing the use of harsh chemicals while improving cleaning efficiency and reducing environmental impact. During the session, the speaker discussed various industrial enzymes such as **proteases, lipases, amylases, and cellulases**, highlighting their mechanisms of action and specific applications in removing protein-, oil-, starch-, and cellulose-based stains. He explained how enzyme-based detergents enable effective cleaning at lower washing temperatures, thereby reducing energy consumption and supporting global sustainability goals. The lecture also emphasized the importance of biotechnology in the development of innovative household care products and the growing demand for bio-based solutions in the detergent and oleochemical industries. Mr. Mourier further discussed the global regulatory framework governing enzyme-based products, emphasizing product safety, quality assurance, environmental compliance, and international regulatory standards. He shared valuable insights into research, innovation, and technological developments at Novonesis, demonstrating how advances in enzyme engineering are driving sustainable industrial processing and consumer product innovation. The lecture was particularly relevant for B.Tech. Oil Technology students, as it highlighted the close relationship between oils, fats, surfactants, and enzyme technology in detergent formulation. Students gained a better understanding of the industrial applications of lipases in oil and fat processing, the importance of green chemistry, and the opportunities for innovation in the household care and oleochemical sectors.



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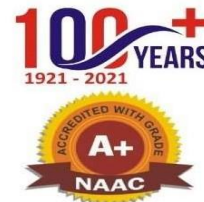
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An interactive question-and-answer session followed the lecture, during which students actively engaged with the speaker on topics such as enzyme stability, detergent formulation, industrial applications, sustainability, and career opportunities in biotechnology and the consumer goods industry. The discussion encouraged students to explore interdisciplinary research and industrial careers at the interface of oil technology, biotechnology, and sustainable manufacturing. The expert talk proved to be highly informative and inspiring. It enhanced students' understanding of modern detergent technology, industrial biotechnology, and sustainable product development while strengthening academia–industry interaction. The Department of Oil Technology sincerely thanks **Mr. Mads Mourier** for delivering an insightful lecture that significantly enriched the knowledge and professional outlook of the B.Tech. students.