Report on Expert Talk by Mr. David De Schaetzen Date: 27/10/2025

The Department of Oil Technology, Harcourt Butler Technical University (HBTU), Kanpur, organized an expert lecture titled **"Recent Developments in Solvent Extraction Technology: Global and Indian Perspective"** on **27 October 2025** for B.Tech. students, faculty members, and research scholars. The expert talk was delivered by **Mr. David De Schaetzen, Technical Expert, Desmet, Belgium**, who shared his valuable industrial experience and technical knowledge in the field of solvent extraction technology and edible oil processing. The objective of the lecture was to provide students with an understanding of modern solvent extraction processes, recent technological advancements, and industrial practices followed in the global and Indian edible oil industries. Mr. De Schaetzen explained the fundamental principles of solvent extraction, emphasizing its importance as a highly efficient method for recovering oil from oilseeds and oil-bearing materials. During the session, the speaker discussed various aspects of solvent extraction technology, including preparation of raw materials, extraction mechanisms, solvent selection, desolventization, solvent recovery, and energy-efficient processing. He highlighted the role of **hexane-based extraction systems**, emerging alternative solvents, and advanced extraction technologies in improving oil recovery, reducing processing losses, and enhancing overall plant efficiency. The lecture was highly relevant for B.Tech. Oil Technology students as it connected their theoretical knowledge of oilseed processing, extraction methods, and refining technologies with real industrial applications. Mr. De Schaetzen discussed modern developments in extraction plant design, automation, process control, safety measures, and environmental considerations. He also emphasized the importance of sustainability, resource optimization, and minimizing environmental impact in the edible oil processing sector. The speaker provided insights into global trends in solvent extraction technology and compared industrial practices followed in different regions, including India. He explained the importance of quality control, solvent management, regulatory compliance, and process optimization for achieving high-quality edible oils. The session also highlighted the growing demand for innovative technologies that improve energy efficiency and support sustainable oil production.

Mr. De Schaetzen encouraged students to develop strong technical fundamentals, practical understanding, and problem-solving skills to meet the requirements of the modern edible oil industry. He also shared valuable guidance regarding career opportunities in oil processing industries, research and development, and industrial technology management. An interactive question-and-answer session was conducted after the lecture, where students actively participated and discussed various topics related to solvent extraction processes, industrial challenges, safety aspects, energy conservation, and future advancements in oil extraction technologies. The discussion helped students gain practical insights into the operation and management of large-scale oil processing plants. The expert talk was highly informative and beneficial for all participants. It strengthened academia–industry interaction and enhanced students' understanding of advanced solvent extraction technologies, industrial practices, and future opportunities in the oil and fats sector. The Department of Oil Technology sincerely expresses its gratitude to **Mr. David De Schaetzen** for delivering an insightful and enriching lecture for B.Tech. students and contributing to their professional development.