SDSU | College of Engineering Mechanical Engineering

Mechanical Engineering Seminar Series

November 17th, 2026, 2:00PM

Industry Perspectives on Polymer Processing and Materials Engineering

International Plastics Equipment, LLC, QTM, Inc. and *PriPro Polymers, Inc.*

This seminar will introduce students and faculty to key aspects of plastic injection molding. Skip Humphrey of International Plastics Equipment, LLC, will provide an overview of injection-molding machines and equipment product lines, followed by Adam Fleck of QTM, who will discuss plastic material feedstocks and their role in the molding process. PriPro Polymers, Inc. will then present its cross-linking technology for thermoplastic elastomers (TPEs) and thermoplastic polyurethanes (TPUs), including its capabilities and potential engineering applications.

11:00–11:05 AM - Welcome and Introduction
PriPro will briefly introduce the presenters and outline the agenda.
11:05–11:15 AM - Injection Molding Equipment
Speaker: Skip Humphrey
Company: International Plastics Equipment, LLC
A 10-minute overview of injection molding machines and the equipment product lines Skip represents.
11:15–11:25 AM - Plastic Material Feedstocks
Speaker: Adam Fleck
Company: QTM
A 10-minute overview of plastic material feedstocks and their role in injection molding.
11:25 AM–12:00 PM - PriPro Cross-Linking Technology
Speaker: PriPro Polymers, Inc.
An overview of PriPro's cross-linking technology for thermoplastic elastomers (TPEs) and thermoplastic polyurethanes (TPUs), including the technology's capabilities and potential engineering applications.

Speakers Bios:
Skip Humphrey
Owner and Manufacturers Representative
International Plastics Equipment, LLC
Skip Humphrey has been involved in the plastics industry since 1952, beginning as a young teenager in his family's custom injection molding business. This early experience gave him firsthand knowledge of injection molding operations, part design, mold engineering, tooling, material shrinkage, and production processes. In the early 1960s, he moved into the plastics materials industry, working with custom-compounded materials and developing expertise in material selection, customer requirements, and processing considerations.
In 1978, Skip began specializing in the sales of new and pre-owned injection molding machines and auxiliary equipment. His work included helping manufacturers select properly sized machines, determine tonnage and shot capacity requirements, and ensure molds were compatible with the equipment. After moving to California in 1988, he continued representing injection molding equipment manufacturers before establishing his own pre-owned equipment business. In 2011, he expanded into representing new injection molding machines manufactured in China.
Today, through International Plastics Equipment, LLC, Skip represents BORCHE injection molding machines and SHINI auxiliary equipment. His experience also includes extrusion, blow molding, and vacuum forming technologies. With nearly 75 years in the plastics industry, Skip has witnessed tremendous advances in machine design, automation, and robotics. His extensive practical experience provides a valuable perspective on the evolution of plastics manufacturing and the technologies shaping its future.

Adam Fleck
Business Development
QTM, Inc.
Adam Fleck has over 17 years of experience in the plastics industry. He began his career in 2008 working for an injection molding company in Arizona, where he gained firsthand experience in plastics manufacturing and injection molding operations. In 2017, he transitioned from manufacturing into thermoplastic material sales, expanding his experience from production operations to material selection and customer applications.
In his current business development role with QTM, Inc., Adam works with large original equipment manufacturers (OEMs) on application development, material selection, and product design. He also supports their contract manufacturers by supplying the thermoplastic materials needed for production. His experience provides a valuable connection between material suppliers, product designers, and manufacturing operations.
For the SDSU presentation, Adam will provide an overview of **plastic materials and feedstocks**, discussing their role in injection molding and how material selection supports product design, performance, and manufacturing requirements.

Pijush Dewanjee (PJ)
President
PriPro Polymers, Inc.
Pijush Dewanjee is a polymer chemist and materials development specialist with extensive experience in the development and custom formulation of engineered polymers. His expertise includes thermoplastic polyurethanes (TPUs), thermoplastic elastomers (TPEs), epoxies, PVC plastisols, rubber, and other advanced polymer materials. He holds a Bachelor of Science degree with double majors in Chemical Engineering and Chemistry from the University of Minnesota, Department of Chemical Engineering and Materials Science, graduating in 1989.
Pijush has an extensive intellectual property portfolio, with 61 U.S. patents, 15 international patents, and 18 additional U.S. patents pending, focused on the development of thermoplastic and castable urethanes. His technical work also includes two publications with the American Society for Artificial Internal Organs (ASAIO) between 1989 and 1990, covering polyurethane catheters and hollow-fiber membrane oxygenators.
As President of PriPro Polymers, Inc., Pijush leads materials development and works on advancing specialized polymer technologies for demanding industrial applications. His background in polymer chemistry, formulation development, and materials engineering provides the technical foundation for PriPro's proprietary X-Link™ TPU and TPE technology, which is designed to deliver performance characteristics traditionally associated with thermoset urethane materials while retaining the processing advantages of thermoplastics.

John Guard
Vice President
PriPro Polymers, Inc.
John Guard is a mechanical design engineer specializing in Design for Manufacturability (DFM), with extensive experience in production design, machine design, process development, and manufacturing optimization. His engineering background focuses on developing practical product designs, improving manufacturing processes, and translating engineering concepts into functional, production-ready products. John holds a Bachelor of Science degree in Mechanical Engineering from San Diego State University, graduating in 1993. His engineering and product development work has resulted in an intellectual property portfolio that includes 24 U.S. patents and 5 additional U.S. patents pending, focused on mechanical design and Design for Manufacturability.
As Vice President of PriPro Polymers, Inc., John works alongside the company's materials development team to bring advanced polymer technologies into practical manufacturing applications. His focus includes product design, tooling, process development, and commercialization of PriPro's proprietary X-Link™ TPU and TPE materials. By combining materials innovation with engineering design and manufacturing expertise, John helps translate advanced polymer technology into functional, commercially viable products for demanding industrial applications.