

**Formula SAE® Workshop Presenter Biographies**  
**February 10, 2024**  
**Lawrence Technological University**

**John R. Bucknell**

John Bucknell has been a Design Judge at FSAE Michigan since 2000, judging powertrain until 2010, and the Chief Aero Design Judge since then.

John graduated from Cleveland State University in 1995 with a bachelor's in mechanical engineering and from the University of Michigan in 1999 with a master's in systems engineering and is a licensed professional engineer. He has led advanced engineering teams at Chrysler and General Motors for three award-winning engine families, was Senior Propulsion Engineer for the Raptor full-flow staged combustion methalox rocket at Space Exploration Technologies, and is currently the Director of Propulsion Engineering for Divergent3D in Torrance, CA developing additively manufactured vehicle technologies. Published technical work includes high efficiency/low operational cost internal combustion engines, economic carbon-neutral synthetic fuel processes, and high-performance air-breathing nuclear rockets as well as 46 US patents.

**Al Chan**

Al Chan has participated in amateur motorsports for four decades. He has captured numerous divisional and regional championships in SCCA and marque club autocross competition. Al has chaired nearly two dozen autocross events for SCCA Detroit Region and independent clubs, and has served as Solo Coordinator for SCCA Detroit Region. He has provided instruction at a variety of autocross schools. He has designed autocross and endurance courses for FSAE events. Al held a club racing license and crewed on open wheel cars.

Al works in the automotive composites and plastics industry, having held technical, commercial, and executive positions. He is now with GEON Performance Solutions, leading their automotive market corporate strategy. Al is a SAE member.

**Darrell Hancock, Jr.**

Darrell has been a member of SAE for nearly 40 years, joining as a student member while a freshman at Rose-Hulman Institute of Technology. Before graduating in 1985, he established the SAE student chapter at Rose-Hulman and served as Secretary-Treasurer, Vice President, and twice as President, while competing in four Baja SAE events.

Darrell has worked as a Tire Engineer at BF Goodrich, as an engineer in IMSA and IndyCar racing, as a Senior Engineer at Rockwell International's Off-Highway division, and as a Senior Engineer at Arvin Ride Control Products. For the last 24 years he has been with Fiat Chrysler Automobiles as a Chassis Engineer, Vehicle Dynamics Supervisor, and currently is a Senior Technical Specialist in Vehicle Dynamics.

**Tim Drotar**

Tim Drotar is currently a lead engineer in advanced vehicle dynamics at Stellantis. Previously, he spent 30 years at Ford Motor Company where he specialized in chassis systems and vehicle dynamics for passenger cars and light trucks. Tim is a member of SAE, SCCA, and The Tire Society. He holds a B.S. in Mechanical Engineering from Lawrence Technological University and a M.S. in Mechanical Engineering from the University of Michigan-Dearborn.

**Ben Duprey**

Ben Duprey is a Simulation Technical Specialist at IPG Automotive USA, Inc. in Ann Arbor, MI. In this role he has taken the lead on several fronts, including virtual vehicle prototyping and various engineering support activities. He's also been involved with SAE for over 20 years, including Formula SAE and ComVec, was a member of the Engineering Meetings Board, and is both an editor and reviewer for the SAE Journal of Commercial Vehicles.

Starting as a co-op at Saleen, Inc. in 2001 as well as 5 years of Formula SAE activities at Rochester Institute of Technology, Ben's involvement in the automotive industry has included in-vehicle calibration of ESC as well as over a decade in which he led engineering support activities (US domestic and international) for CarSim, TruckSim, BikeSim, and SuspensionSim at Mechanical Simulation Corporation.

Ben's formal education includes an MS from Virginia Tech and a BS from RIT, both in Mechanical Engineering. His research interests and activities include fuzzy logic, game theory, and decision making under uncertainty.

### **Michael J. Royce**

Michael has been actively involved in Formula SAE since 1986, was a member of the Formula SAE Rules Committee from 1996 to 2009, and its chairman from 2000. He is a member of the Formula Hybrid Rules Committee, and also answers student's questions for Formula Student (UK) and FSAE (USA). He has officiated at over 80 Formula SAE, Formula Student (UK), FSAE-Australasia, FSAE-Italy and Formula Hybrid competitions.

After working almost 41 years within the Chrysler family, he retired as the Senior Manager of Advanced Engine Technologies & USCAR Programs. Between 1992 and 1994 he was the Technical Director at Lamborghini Engineering in Italy, managing the Chrysler-Lamborghini Formula 1 engine program. He now works as a consultant for Albion Associates LLC.

In 2005 he received the SAE's Excellence in Engineering Education Award for his work with Formula SAE.

Michael holds bachelor's and master's degrees in Mechanical Sciences from Cambridge University, England, and master's degrees in Automotive Engineering from the Chrysler Institute of Engineering and in management from the University of Michigan-Dearborn.

### **Adam Zemke**

Adam Zemke obtained undergraduate and master's degrees in mechanical engineering from Michigan State University. While there, he served as Project Manager of the 2006 and 2008 Formula SAE vehicles, the latter of which placed 4th at the Formula SAE West competition. Adam remains a strong supporter of Formula SAE today, serving as Presentation Event Captain and a member of the organizing team for the competition held annually in Michigan.

Adam now serves as Managing Partner of 1837 Partners, where he helps craft and advocate for public policy improvements in Michigan's public education system. He previously served as a member of the Michigan House of Representatives, where he worked to create Michigan's MiSTEM system, and as the global manager of STEM education at Ford Motor Company.