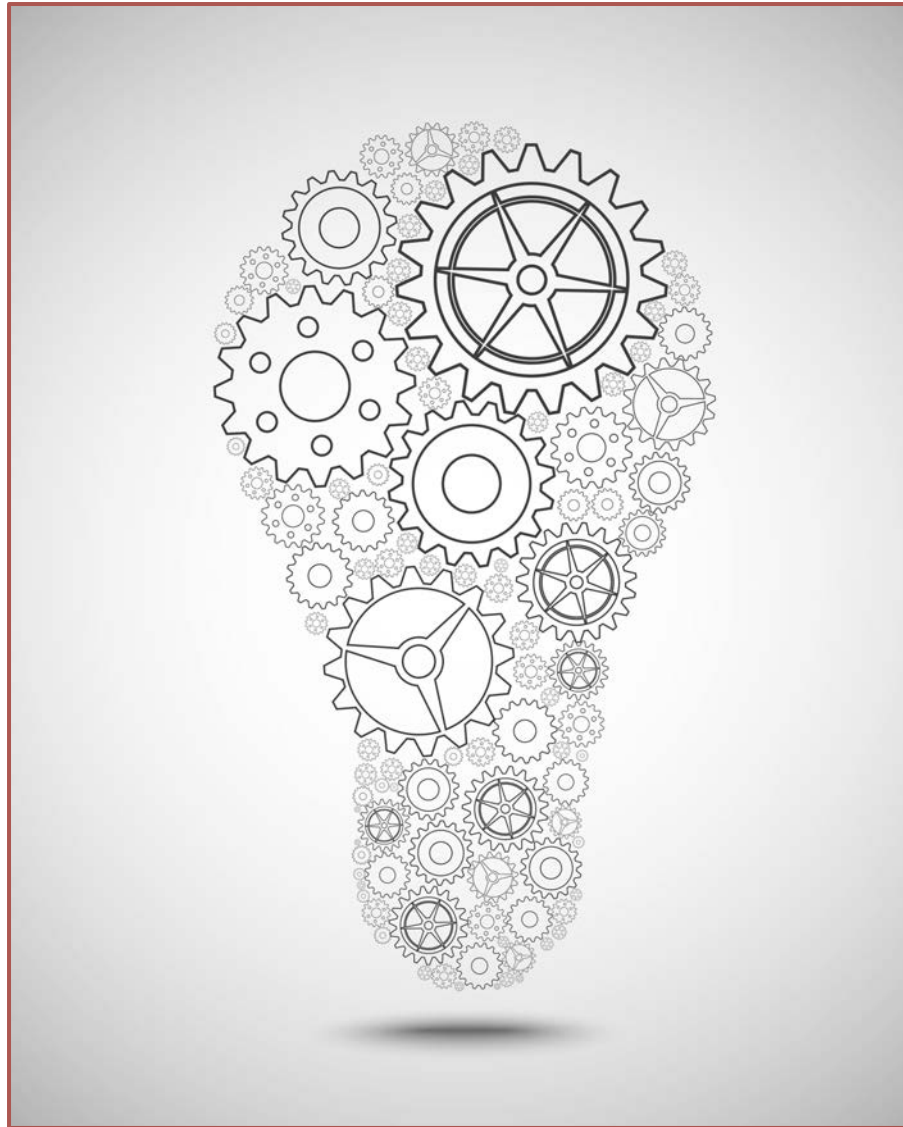


# ETA Technology Summit



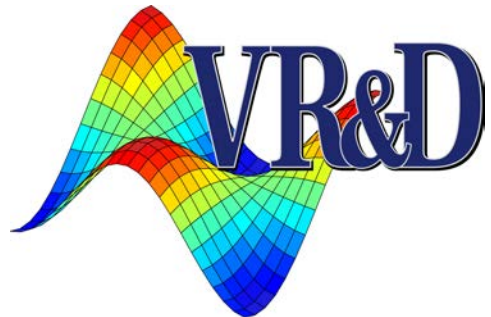
**eta**

**Wednesday, June 13<sup>th</sup>, 2018**  
**Atheneum Hotel, Detroit, Michigan**



*Innovation Starts Here*

**Thank you to our Sponsors!**



# ETA Technology Summit Agenda

7:30-8:15	<b>Registration &amp; Breakfast</b>	
8:15-8:30	<b>Opening and ETA Vision</b> Abe Keisoglou, ETA	
8:30-9:00	<b>Steel Innovation, Lightweighting and Challenges</b> John Catterall, Auto/Steel Partnership	
9:00-9:30	<b>Roll Forming using LS-DYNA and DYNAFORM</b> Peter Vogel, DYNAMORE Germany	
9:30-10:00	<b>A Paradigm Shift in Vehicle Safety Systems and Trends</b> Dr. Saeed Barbat, Ph.D., FSAE, FASME, Ford Motor Company	
10:00-10:30	<b>Morning Break</b>	
10:30 -11:00	<b>Evolution of the Usage of Structural Optimization in Industry</b> Juan Pablo Leiva, Vanderplaats Research & Development, Inc.	
11:00- 11:30	<b>An Introduction of 6th Generation DYNAFORM</b> Jenson Chen, DFE Tech	
11:30 -12:00	<b>ACP OpDesign – Optimal Design Gateway</b> Alexis Kaloudis, BETA CAE Systems	
12:00 – 1:30	<b>Lunch</b>	
1:30 – 2:15	<b>ACP Demo</b> Theocharis Sarigiannis, BETA CAE Systems	<b>DYNAFORM Demo</b> Jenson Chen, DFE Tech
2:15 – 2:45	<b>Composite Materials, Damage Detection, Material Modeling of Advanced structures</b> Harsh Baid, AlphaSTAR	<b>DYNAFORM Case Study</b> David Darling, Consultant
2:45 – 3:00	<b>Afternoon Break</b>	
3:00 – 3:30	<b>VPG: Application Specific Plugins for Mechanical System Analysis</b> Divesh Mittal, ETA	<b>Virtual Correlation &amp; Compensation for Springback using DYNAFORM</b> Travis McCall, Centerline Engineering
3:30 – 4:00	<b>Door System Multi-material Lightweighting Using ACP OpDesign</b> Dr. Akbar Farahani and BETA	<b>Rapid and Accurate DYNAFORM Analysis Using a Multi-core MPP Widget</b> Vinayak Walvekar, ETA

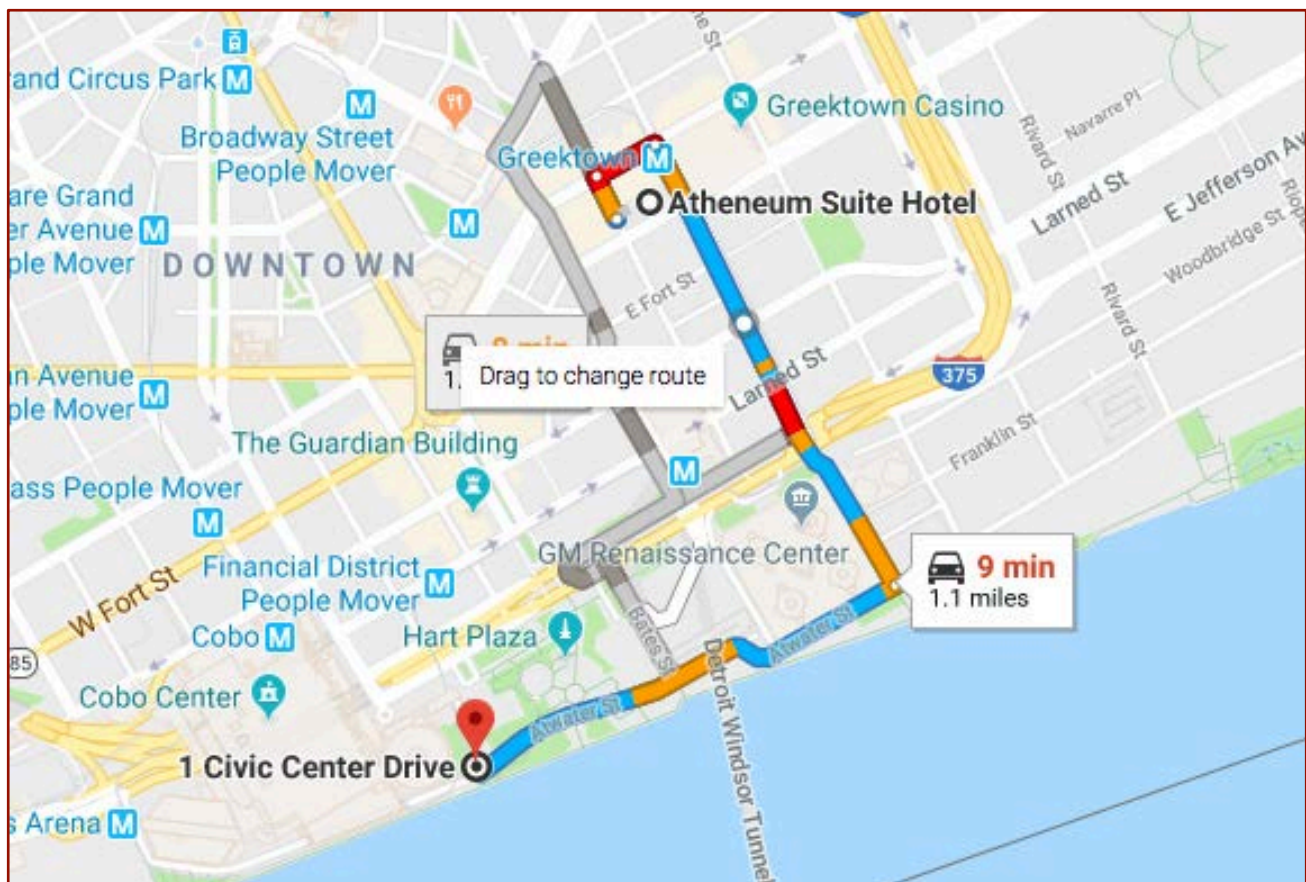
# Join us for an evening Riverboat Cruise on the Detroit Princess!



## Directions from the Atheneum Suite Hotel

- Head northwest on Brush St toward Monroe Ave
- Take Beaubien St and E Jefferson Ave to Bates St
- Follow Bates St and Atwater St/Nelson Mandela Dr to Civic Center Dr
- Arrive at: 1 Civic Center Dr, Detroit, MI 48226

**Our group will be on deck #3.**



# BIOGRAPHIES:

**Abraham Nikolaos Keisoglou** was born in Thessaloniki, Greece and he came to the United States in 1956. He graduated with a Bachelor of Science from Michigan State University in 1969. Abe began his career as a Structural engineer, Project Engineer and Senior Project Engineer at Chrysler Corporation, Rockwell International and Ford Motor Company. Then, from 1981-1983 he was a Consultant for General Motors Corporation and Ford Motor Company. As an independent consultant, he eventually joined forces with Wing Lee and Arthur Tang to found ETA in 1983. Since then, Abe has led the company as President and CEO to the innovative company it is today, with over 300 employees, an experienced engineering consulting team and several successful engineering software products.

**John Catterall** John Catterall is executive director of the Auto/Steel Partnership (A/SP). In this role, he is responsible for maintaining and enhancing the partnership between auto and steel investors and executing strategic projects to develop lightweight steel solutions to meet the current and future needs of automakers. Catterall's career has spanned nearly four decades in automotive engineering. His expertise lies in engineering and finite element analysis of body, chassis and closure structures. Most recently, he held the position of global innovation manager for body systems at General Motors for more than 16 years. In that role, he led the GM global innovation team in developing global innovation solutions for all body systems. Prior to GM, his career experience has been in project execution, management, coordination and technical leadership with companies such as Autokinetics, Inc., Desktop Engineering International Inc., Hartwick Professionals Inc., Lexel Engineering, H.W. Structures, Austin Rover and Leyland Vehicles (the latter three are in the United Kingdom). Mr. Catterall holds degrees in Mechanical and Production Automotive Engineering from Bolton Technical College and Leyland Technical College in England, UK.

**Peter Vogel** studied Precision Engineering and Micromechanics at the University of Applied Sciences in Nuremberg, Germany. Working with various FEM software solutions in the area of structural analyses as a project engineer. Peter joined DYNAMORE in 2004 and has worked as a Project Engineer, Team Leader and Senior Consultant in the field of forming simulation using LS-DYNA and eta/DYNAFORM. He is currently the Manager of Applied Forming Simulations and is responsible for the eta/DYNAFORM business and Applied Forming Technologies at DYNAMORE.

**Dr. Saeed Barbat** has been The Executive Technical Leader for Safety since 2011, the highest safety technical position at Ford globally, overseeing overall vehicle safety in research, advanced product development, strategy, and regulatory, company-wide. He is also a member of the Ford's Technical Advisory Board, the highest Technical Board at Ford, serving as vehicle safety technical adviser and consultant. Dr. Barbat has 34 years of engineering experience: 26 years in Automotive Safety, 2 years in the aircraft engineering, and 6 years in the academia. In his current position, his roles and responsibilities are monitoring safety, societal and technology trends and develop project portfolio roadmaps and safety technology strategy framework for executions. He serves as the safety consultant addressing vehicle safety development issues and provides thought leadership and corporate technical support in interaction with regulatory/public domain agencies. Dr. Barbat holds a Ph.D. degree in Applied Mechanics from the University of Michigan, Ann Arbor, US in 1990; M.S. degree in Mechanical Engineering and Applied Mechanics from UMIST, Manchester, UK in 1980; and a B.S. degree in Mechanical Engineering from The University of Baghdad, Iraq in 1976.

**Juan Pablo Leiva** is currently the President and COO of Vanderplaats Research and Development, Inc. Mr. Leiva has over 25 years of experience in finite elements and optimization software development. He is one of the main developers of the structural optimization program GENESIS which is used in automobile, aerospace, motor sports and other industries. He has made important contributions on sizing, shape, topology, topography, topometry and freeform optimization and has published multiple papers on those subjects. He has organized and taught multiple courses on the usage of structural optimization where several hundred engineers have been trained. Mr. Leiva has also participated in numerous projects in the

car industry and has helped companies create and implement innovative methods that have allowed engineers minimize weight and improve performance of vehicles and components. Mr. Leiva received a BS (1986) and an Engineering degree (1989) in Civil Engineering from University of Chile. In 1990 he also received a MS on Structural Mechanics from the University of California, Los Angeles (UCLA). He is a senior member of AIAA and a member of SAE.

**Jenson Chen** graduated with a Master of Science in Mechanical Engineering from Michigan Technological University. He has over 18 years of extensive experience in the CAE field using LS-DYNA, DYNAFORM and VPG. He also has a strong background in the field of sheet metal forming, tubular/sheet hydroforming and rotary draw bending. He has extensive knowledge on modern formability, draw die development, advanced CGA, draw die design, die system analysis, BIW crashworthiness, occupant safety analysis, vehicle dynamics, NVH and drop testing. He has worked in various engineering positions at the National Steel Corporation, DaimlerChrysler Corporation and is now the owner of Dyna Forming Engineering and Technology and Business Director for ETA.

**Alexis Kaloudis** Born in Thessaloniki, received the degree of Mechanical Engineering from the Aristoteles University of Thessaloniki, where started working with FEA codes back in 1991. Joined BETA CAE in 1999, specialized in crashworthiness simulation by participating on-site in the development of automotive vehicles. Currently is the CEO of BETA's office in Germany and is responsible for the development of the product ACP OpDesign.

**Theocharis Sarigiannis** is a Mechanical Engineer who graduated from Aristoteles University of Thessaloniki. He joined the BETA CAE Systems Customers Service department in 2011, where he still works, currently as a senior engineer. During these years his work has focused upon various areas of CAE expertise, from creating digital models, to FE Analysis for all discipline types, offering solutions tailored to customer needs. In the last 3 years, he is also a member of the ACP OpDesign development team.

**Harsh Baid** is a Research Scientist at Alpha Star Corporation (ASC), Long Beach California. Prior working at ASC Dr. Baid has performed research at the UCLA Material Degradation and Characterization Laboratory since March 2005 and has gained extensive experience and knowledge in the field of Structural Health Monitoring (SHM) using ultrasonic wave propagation technology. Dr. Baid's work at UCLA included development and implementation of more accurate and efficient nondestructive technique then currently available to detect damages in advanced composite materials and structures used in aircraft, aerospace, marine, automotive and other structures. Dr. Baid has been working as a Research Scientist at Alpha Star Corporation (ASC) since July of 2012. Dr. Baid received his Ph.D. from University of California at Los Angeles (UCLA) in June 2012 (Outstanding PhD Student Award) in the area of structural health monitoring. Dr. Baid received his B.S. and a M.S. in Mechanical Engineering from UCLA as well in 2006 and 2009 respectively.

**Divesh Mittal** graduated at the University of Detroit Mercy with a Master's of Science in Mechanical Engineering (Vehicle Dynamics and Mechatronics/ Electric vehicle technology) in 2004. He worked as a Multi-disciplinary Engineer in Vehicle Dynamics at MTS Technologies and worked as a Product Engineer in NVH at Chrysler. Since 2008, Divesh has worked at ETA as a Sr. Project Engineer. In this role he serves as the Team lead for various consulting projects, including full vehicle/subsystem development considering crash, vehicle dynamics, NVH and optimization. He also leads projects in manufacturing simulation for solving real world problems. He was critical in the development of ACP OpDesign, an optimization-led software developed in-house. Finally, Divesh also assists with technical and sales support for LS-DYNA, DYNAFORM, PreSys and VPG.

**Dr. Akbar Farahani** Dr. Akbar Farahani is currently Vice President and Director of Global Engineering and Software (US, EU, Asia) at ETA Inc. He has over 30 years of experience in CAE and product design development and consulting for automotive OEMs and suppliers, including GM, Ford, Chrysler, Nissan, Toyota, Honda, Kia, and Hyundai. His areas of expertise include method development for product design

and development using CAE such as the Virtual Proving Ground (VPG) software and optimization technology (topology and parametric). In the past 15 years he focused on lightweighting technologies and design solutions investigating material options and manufacturing processes for full vehicle system and Chassis/Suspension. Dr. Farahani led the development of ETA's Patented Technology "ACP Process" (Accelerated Concept to Product Process) and ACP OpDesign (optimization led design software). He has managed and executed over 18 full vehicle CAE programs for Crash/Safety, NVH, Durability and Vehicle Dynamics from concept to production in the US, EU and Asia. He has extensive knowledge of advanced material functions for full vehicle development (Advance High Strength steel, Aluminum and Composite). He received his Bachelor's Degree in Civil Engineering from the University of Nevada and a Master's Degree from the University of California, Irvine in Structural Dynamics. He continued his education at BYU and he received his Ph.D. in Civil Engineering/Structural Mechanics with an emphasis on non-linear thin shell structures, using Finite Element Methods.

**David Darling** David is a strategic thinker and innovator who is always looking at Continuous Improvement and Technological Innovations; not as one-time processes, but as a business culture. He has been viewed by many as a visionary type of leader, capable of driving fundamental changes to centuries-old businesses and trades. David has extensive experience in LEAN, manufacturing processes, business standardization, engineering, and sales (both domestically and internationally). After spending nearly 15 years in the automotive industry working for DaimlerChrysler/ FiatChrysler continually accepting new positions of greater responsibility and leadership, ultimately culminating as VP & COO of a \$50M wholly owned business unit. During this tenure, David effectuated massive change in almost every area he touched. This includes tremendous accomplishments in employee/union management, manufacturing management, and ultimately as the turnaround person, responsible for re-imagining the way the established, bankrupt, subsidiary conducted business and built product.

**Travis McCall** is a Simulation Engineer at Centerline Engineering, a tool and die shop specializing in high quality stamping dies in Grand Rapids, MI. Before becoming an Engineer, he worked as a lead CNC programmer while consulting with other companies on CNC processes for 12 years. In 2014 he joined Centerline's Engineering department. Here he has worked on creating metal stamping processes using simulation and design software. He finds great pleasure in working with others applying continuous innovation to meet the ever changing standards of the automotive industry.

**Vinayak Walvekar** is a technical sales and support engineer for DYNAFORM at ETA. He has a Master's degree in Mechanical Engineering and has been working in CAE field for the past 10 years. He has worked on certifications of aerospace components, like birdstrike analysis and in automotive new car assessment programs. He works with existing and new accounts, benchmarking DYNAFORM and setting up licenses & troubleshooting software issues.

**NOTES:**