# **IAEC**

International Automotive Engineering Conference Uluslararası Otomotiv Mühendisliği Konferansı



# **About the Conference**

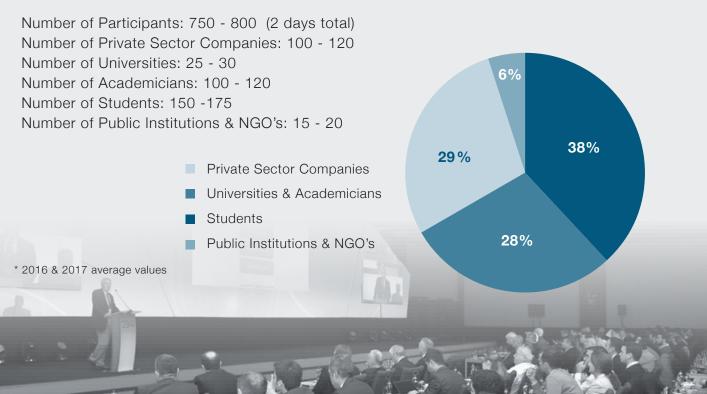
International Automotive Engineering Conference - IAEC is organized by OİB (Automotive Industry Exporters' Association), OSD (Automotive Manufacturers Association), OTEP (Automotive Technology Platform) and TAYSAD (Association of Automotive Parts & Components Manufacturers), in cooperation with SAE International (Society of Automotive Engineers), which will be held on November 1-2, 2018 in Istanbul.

Automotive Industry, as one of Turkey's leading industries with remarkable impact on the economy, is targeting to

- Develop engineering, R&D and innovation capability
- Foster cooperation between universities and the industry,
- Encourage the utilization of alternative resources through engineering companies at national and international level, to increase product development and innovation capability.

The educational and developmental output that run parallel to the aforementioned needs are necessary for both research and engineering teams. Based on this purpose and necessity, IAEC is planning to guide R&D and engineering output in the industry, perception management, and information-sharing.

# Participants Profile\*





# About the Stakeholders



The Uludag Automotive Industry Exporters' Association (OIB) was formed in 1991 under the title of Uludag Vehicle and Auxiliary Industry Exporters' Association (UTAYSIB) with 246 members and exports of \$163 million under the umbrella of the Uludag Exporters' Association. As of 2017, OIB has 4.700 active memberships and it is the sole export representative of the automotive industry, the locomotive of the country's total exports. All exporting main and supplier industry companies in the automotive sector in Turkey are members of OIB, which is a union of coordination for automotive sector exporters. Continuously active for 27 consecutive years and with an exports level of 25,6 billion dollars by the end of 2017, OIB's share in the total exports of UIB is 87% and as such, it continues to be a determined leader in exports, a status it has maintained for many years. As the export champion of the last twelve years and Turkey's largest export sector, the automotive industry is in first place in commercial vehicle manufacture in Europe.







The Automotive Manufacturers Association (OSD), established in 1974, represents the automotive manufacturers operating in Turkey at domestic and international levels.

OSD is an active member of the Association of International Automobile Manufacturers (OICA).

# The Mission of OSD is to:

Contribute to the development of a sustainable and internationally competitive automotive industry in Turkey,

Collect, analyze and circulate information on the automotive industry among its members and the public at large,

Study issues of mutual interest to its members and develop industry position on these matters,

Promote industry policies in the domestic and international arena with the concerned parties and the public in general.





- Celebrating its 40th anniversary this year, TAYSAD is the sole and most competent representative of the Turkish automotive supplier industry
- With 400 members, TAYSAD represents 70% of the output of the automotive supplier industry and 80% of the industry's exports
- 80% of TAYSAD's members operate in the Marmara region;12% in the Aegean region and 8% in other regions of Turkey
- 400 TAYSAD members employ more than 160,000 people.
- 25% of TAYSAD members have foreign partners who hold varying levels of shares
- TAYSAD is a member of CLEPA, the European Association of Automotive Suppliers (www.clepa.be)
- TAYSAD has a reference position within Turkey for domestic and international OEM's, Tier 1 Suppliers and institutions being the representative of Turkish Automotive Parts and Components Suppliers
- TAYSAD holds ESCA Silver Label and ISO 9001 Certificates.

# **Our Vision**

"3T-10-2030" To put the Turkish Automotive Supplier Industry into the top ten in the Global Automotive Market through its Design-Technology-Supply capability.

# **Our Mission**

As the most competent non-governmental organization in its own sector, TAYSAD strives to create strategies to meet the expectations of its members and to support the sustainable growth of the Automotive Supply industry through globally competitive businesses.

To ensure that it continues to serve as a "Reference Institution" in its own sector, TAYSAD keep developing itself by working in coordination with official institutions and stake holders through the strength derived from its values.







"Automotive Technology Platform" (OTEP) is founded in 2008 with support of TUBITAK incentive to unite the organizations operating in Turkey which are directly or indirectly related with automotive industry, in order to improve the R&D capability and ensure the competitiveness of Turkey's long-term aims in this field.

OTEP's membership structure constitutes of OEM's, Automotive Industry Suppliers, Engineering, Test and Analysis firms and Universities which allows the balanced representation of related stakeholders in the automotive sector. In this point Vision and Mission of OTEP is stated as follows;

# Vision:

"To maintain an internationally competitive R&D and innovation infrastructure in Turkish Automotive Industry."

# Mission:

"To form policy and foster cooperation in order to develop R&D and innovation capabilities of Turkish Automotive Industry."

Automotive Technology Platform (OTEP) continues to work in line with its Vision and Mission, in order to create added value by coordinating R&D activities at national and EU level, to stimulate innovative new investments for a strong Turkish economy.





# HISTORY

# IAEC'16

# Main concept: WEIGHT REDUCTION

The first International Automotive Engineering Conference (IAEC) took place on the 3<sup>rd</sup> and 4<sup>th</sup> of November, 2016, in Istanbul.

The aim of the conference was reviewing the latest developments in the automotive industry with respect to automotive engineering, where leading international experts presented the latest thinking in the field of "Weight Reduction".

The conference addressed the issues of Automotive Engineering Education where we will hear views from the US and Turkish sides. The event also included a panel on career opportunities in automotive industry in Turkey.





# **IAEC'16 TOPICS, SPEAKERS & PANELISTS**

#### 3<sup>rd</sup> of November 2016 (Thursday)

Opening Speech - Cüneyt L. Öge, President, SAE INTERNATIONAL

Advanced Multi-Material Lightweight Design- State of the Art and Challenges

Prof. Dr.-Ing. Thilo Bein, FRAUNHOFER LBF, Head of Knowledge Management

#### SESSION I

Moderator - Prof. Dr. Orhan Behiç Alankuş, OKAN UNIVERSITY, R&D Coordinator

**Concept Vehicle - Design and Comparative LCA Study** 

Tim Skszek, MAGNA INTERNATIONAL, Senior Manager, Government Partnerships

#### **Light Weight in Commercial Vehicles**

Dr. Rupert Niethammer, MERCEDES-BENZ TÜRK, Development Truck Vehicle Systems Senior Manager

Challenges in the Preparation of Composites of Polymers and Nanoparticles for Light-weighting Applications: From Molecule to Manufacture

Prof. Tony McNally, UNIVERSITY OF WARWICK, Chair Professor in Nanocomposites

#### **SESSION II**

Moderator - Ernur Mutlu, FORD OTOSAN, R&D Consultant

Advanced High Strength Steel Grades for Automotive Industry and Challanges in Development and Production Dr. Oğuz Gündüz, ERDEMİR, R&D Director

Lightweighting Solutions for Automotive Industry with Carbon Fiber Composites Levent Gür, DOWAKSA, Chief Commercial Officer

#### Holistic Approach to Vehicle Lightweighting

Ergün Güraslan, FORD OTOSAN, Engineering Director

#### **SESSION III**

Moderator - Osman Gazi Dündar, TEMSA GLOBAL, Researchment and Development Manager

**Cost Efficient Lightweight Approach in Designing "Rational" Car** Tolga Uludağ, TOFAŞ, Body Design Unit Manager

**More Than a Viable Solution in Automotive Industry; Aluminum** Dr. Murat Dündar, ASSAN ALÜMİNYUM, Director of Technology

Challenge of Nano in the Macro World of Lightweight Composites: Are We There Yet?

Dr. Melih Papila, SABANCI UNIVERSITY, Academician

#### 4<sup>th</sup> of November 2016 (Friday)

The Importance of Industry-University Interactions to Automotive Engineering Education

Dr. Emmanuel De Moor, COLORADO SCHOOL OF MINES, Advanced Steel Processing and Products Research Center, Academician

Automotive Engineering Education in Turkey

Prof. Dr. Ahmet Güney, ISTANBUL TECHNICAL UNIVERSITY, Automotive Laboratories, Academician

Panel Discussion on Automotive Engineering Education

Moderator - Batuhan Aydagül, EĞİTİM REFORMU GİRİŞİMİ, Director

Prof. Dr. Cem Soruşbay, ISTANBUL TECHNICAL UNIVERSITY, Automotive Laboratories, Academician

Dr. Tarık Öğüt, FİGES, Chairman

Dr. Recep Kurt, MARTUR, Director / R&D

Dr. İsmail Durgun, TOFAŞ, R&D and Academy Consultant

SAE Presentation - Cüneyt L. Öge, President, SAE International

Panel Discussion on Career in Auto Industry

İbrahim Eserce, TEMSA GLOBAL, R&D and After Sales Director Betül Çorbacıoğlu, MERCEDES-BENZ TÜRK, Human Resources Senior Manager Nursel Ölmez Ateş, FORD OTOSAN, Human Resources Director Ayhan Tokcan, STANDARD PROFİL, Vice President Human Resources Gül Ünal, TEKLAS, R&D Manager



# HISTORY

# IAEC'17

# Main concept: FUTURE OF MOBILITY

The 2<sup>nd</sup> International Automotive Engineering Conference (IAEC) realized on 2<sup>nd</sup> and 3<sup>rd</sup> of November 2017, in Istanbul.

The aim of the conference was reviewing the latest developments in the automotive industry with respect to automotive engineering, where leading international experts presented the latest thinking in the field of "Future of Mobility".

The conference addressed the issues of Autonomous Vehicles, Electro-mobility, Connected Vehicles, Smart Cities, Automotive Engineering Education, where views were heard from the US, Europe, and Turkish sides. The event also included two panels on Industry-University cooperation on design, and industry expectations from the engineering education in Turkey.





# IAEC'17 TOPICS, SPEAKERS & PANELISTS

	hursday)
Opening Speech - Wel	Icome Speech - Prof. Dr. Mustafa İlhan Gökler, METU - Conference Chair
	(A Window into the Future of Automotive Mobility) & Management Consultants, Partner - Germany
<b>Mobility</b> Murat Doğru, SAE, Dir	rector of SAE European Operations - Belgium
PANEL "FUTURE OF Vehicle Connectivity Prof. Dr. Ece Schmidt,	in Intelligent Transport Systems: Today and Future
<b>Driving the Autonom</b> Dieter Gabriel, Velodyr	nous Revolution ne Lidar, Marketing Manager, EMEA - Germany - 3D LiDAR Sensors
Q&A - Ernur Mutlu - Pa	anel Chairman
System Approach	ort (Sustainable Road Transport - Options for Decarbonization and Digitalization in a uer, ERTRAC, Chairman - Germany
Muhammed Alyürük, IS <b>The Road to Automa</b> Tülin Baysal, Bosch, C	<b>Ated Driving - Chances and Challenges</b> Chassis System Control - Systems Engineering Automated Driving - Germany
	t Truck: Safe, Autonomous, Connected ercedes Benz Turkey, R&D Director - Turkey
Mustafa Gürcan, Tems	sa, R&D Manager - Turkey
Q & A - Prof. Dr. Fikri ł	Karaesmen - Panel chairman
	en and Fuel Cells for Transportation: Status, Progress, and the Path Forward) RA/George Washington University, Project Manager/Adjunct Professor - USA
<b>Future of Mobility an</b> Özkan Yıldırım, Deloitte	nd its Effects on Automotive Ecosystem e, Partner - Turkey
of November 2017 (Fi	riday)
Opening Speech - Wel	Icome Speech - Prof. Dr. Mustafa İ. Gökler, METU - Conference Chair
	nomous Vehicles - (Autonomous Vehicles Testing) olt Szalay, Budapest University of Technology and Economics - Hungary
	<b>DUS VEHICLES"</b> neral Motors, Director of Electrical & Controls Systems Research Lab in Warren, MI - USA aşkın Padır, Northeastern University - USA
Q&A - Prof. Dr. Günay	Anlaş - Bogazici University - Panel Chairman
<b>Long Range E-Mobili</b> Dr. Klaus Kuepper, AVI Prof. Dr. Murat Pekşen	ELECTROMOBILITY" ity: Challenges & Solutions L, Executive Chief Engineer - Austria n, Multiphysics Energy Solutions (MES) - Germany , FEV, Global Vice President Electronics & Electrification - Germany
	<b>dization and Electric Vehicles In Automotive Industry</b> Renault, Head of Electrical Systems&Electrotechnical Components Design&Development - Turkey
Q&A - Prof. Dr. Nejat T	Funcay - Okan University - Panel Chairman
Özkan Yıldırım, Deloitte Nursel Ölmez Ateş, Fo Betül Çorbacıoğlu, Me	<b>OMEN PRESENCE IN TURKEY AUTOMOTIVE BUSINESS"</b> e, Partner - Turkey ord Otosan, Human Resources Director - Turkey orcedes-Benz Turkiye, Human Resources Senior Manager - Turkey at Kredi Finansman, General Manager - Turkey
<b>Vehicle Design in Mo</b> Prof. Dale Harrow, Roy	<b>obility Era</b> yal College of Art, Head of Automotive Design - UK
	JNIVERSITY COOPERATION ON VEHICLE DESIGN" ord Otosan, R&D and IPR Manager - Turkey
	cooperation for Technological / Scientific Interaction ndart Profil, Group R&D Director - Turkey
Prof. Dr. Murat Ereke,	ITU - Turkey
Q&A - Prof. Dr. Orhan	Alankuş Okan University - Panel Chairman
	/E INDUSTRY EXPECTATIONS FROM THE EENGINEERING EDUCATION"
	eneral Secretary - Turkey
Osman Sever, OSD, G	

International Automotive Engineering Conference '18

# November 1-2, 2018 Swissotel The Bosphorus

Istanbul, Turkey

www.iaec.ist



# IAEC'18

# Main concept: THE PRESENT AND FUTURE OF AUTOMOTIVE ELECTRONICS AND SOFTWARE

The 3<sup>rd</sup> International Automotive Engineering Conference (IAEC) will take place on 1<sup>st</sup> and 2<sup>nd</sup> of November 2018, in Istanbul.

The conference aims at reviewing the latest developments in automotive industry with respect to automotive engineering and leading inter national experts will present latest thinking in the field of "The Present and Future of Automotive Electronics and Software".

The conference will address the issues of "Considerations on Future of Automotive Electronics & Software", "Automotive Software Security & Blockchain", "Regulations and Testing for Intelligent Vehicles", "Adaptive Platform for Intelligent Vehicles", "Impact of Emerging Technologies on Automotive Ecosystem", "5G and Future for Automotive Connectivity", "Future of Electronics on Vehicles", "Artificial Intelligent on Vehicles", "Technology & Ethic", "Intrapreneurship Strategies in Automotive", "Innovative Start-ups on New Technology Development in Automotive Sector".

This event will also include "1<sup>st</sup> Automotive MSC and Doctorate Thesis Awards" ceremony.





# **IAEC'18 TOPICS**

1 <sup>st</sup> of November 2018 (Thursday)
Opening Speech - Welcome Speech
Keynote Speech - Considerations on Future of Automotive Electronics & Software
Q & A Session
Keynote Speech - Automotive Software Security and Blockchain
Q & A Session
PANEL - "REGULATIONS AND TESTING FOR INTELLIGENT VEHICLES"
Q & A Session
Keynote Speech - Adaptive Platform for Intelligent Vehicles
Q & A Session
PANEL - "IMPACT OF EMERGING TECHNOLOGIES ON AUTOMOTIVE ECOSYSTEM"
Q & A Session
Keynote Speech - 5G and Future for Automotive Connectivity
Q & A Session
Keynote Speech - Future of Electronics on Vehicles
Q & A Session
2 <sup>nd</sup> November 2018 (Friday)
Opening Speech - Welcome Speech
Keynote Speech - Artificial Intelligence on Vehicles
Q & A Session
Keynote Speech - Education
Q & A Session
PANEL - "FORMULA STUDENT"
Q & A Session
Keynote Speech - Intrapreneurship Strategies in Automotive
Q & A Session
PANEL - "IMPACT OF INNOVATIVE START-UPS ON NEW TECHNOLOGY DEVELOPMENT IN AUTOMOTIVE SECTOR"

Q & A Session

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