# **Conference Highlights**







# Conference on Emerging Trends in Automotive Engineering (CETAE-2017)

Held during 28<sup>th</sup> – 29<sup>th</sup> December 2017
Organized by the Department of Automotive and Marine
Engineering, NED University of Engineering and
Technology, Karachi, Pakistan



Prof. Dr. Muhammad Tufail, Pro Vice Chancellor



Dr.-Ing. Mushahid Hussain Hashmi



Dr. Faraz Akbar



Dr. Maaz Akhtar



Dr. Murtuza Mehdi







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### **Acknowledgement**

Starting with the name of **Almighty ALLAH** without Whose assistance we are unable to accomplish any objective in life.

We are specifically indebt to Prof. Dr. Sarosh Hashmat Lodhi (Vice Chancellor) and Prof. Dr. Muhammad Tufail (Pro Vice Chancellor) NED University of Engineering & Technology, who have been extremely supportive throughout, for providing us a platform for organizing this event.

Moreover, this event would not have been possible without the financial support of the Higher Education Commission (HEC), Pakistan. With their help, we were able to organize the event successfully on the larger scale.

Our appreciation would be incomplete without giving credits to keynote speakers for sparing time from their busy schedule for the conference. Moreover, we are very grateful to all the authors who presented their papers in conference and contributed greatly in order to make this event successful.

In addition, acknowledging the event organizing committee Mr. Saad Ellahie (Chairperson DICE Automotive, USA), Prof. Dr. Ing. Syed Mushahid Hussain (Chief Event Organizer), Dr. Maaz Akhtar (Chief Conference Organizer), Dr. Mubashir Ali Siddiqui (Conference Chair), Dr. Faraz Akbar (Member Conference Organizer) and Dr. Murtuza Mehdi (Member Conference Organizer) for their significant efforts & guidance.

Last but not the least, we would like to pay our humble gratitude to all the management teams, photographers and volunteers of DICE Conference for their commitment, hard work and utter dedication.







# **About the Conference**

DICE and NED University of Engineering & Technology jointly organized a "Conference on Emerging Trends in Automotive Engineering (CETAE-17)" held during 28<sup>th</sup> - 29<sup>th</sup> December 2017 in Karachi, Pakistan. The goal of this conference was to provide a forum to exchange ideas and information regarding current research activities and plans for addressing different issues of the automotive industry. It was anticipated that participation of experts from related fields in this conference would lead to an exchange of information on recent research and the latest technologies that are most suitable for Pakistan. The conference was expected to establish and enhance linkages between industry and academia that could provide necessary impetus for new development and research projects. Research papers were presented in the conference after being peer-reviewed. Research papers were also published in the conference proceedings.







# **ORGANIZING COMMITTEE**

Prof. Dr. Sarosh Hashmat Lodhi Patron

Dr. Khurshid Qureshi Co-Patron

Prof. Dr. Muhammad Tufail Chairperson-Academia

Mr. Saad Ellahie Chairperson DICE-

Automotive, USA

Dr Maaz Akhtar Conference Chief

Organizer

Dr.-Ing. Syed Mushahid Hussain Hashmi Event Chief Organizer

Dr. Mubashir Ali Siddiqui Conference Chair

Dr Amir Iqbal Chief Co-Organizer

Chairman, Electronics Chief Co-Organizer

Chairman, Chemical Chief Co-Organizer

Chairman Computer Science Chief Co-Organizer

Chairman Computer System Engg. Chief Co-Organizer

Dr. Mehmood Hassan Chief Coordinator

Mr. Ali Zulqarnain Chief Coordinator

Dr. Faraz Akbar Member Conference

Organizer

Dr. Murtuza Mehdi Member Conference

Organizer



### **KEYNOTE SPEAKERS**

Following experienced and well-known speakers from Automotive industry have delivered keynote speeches in the conference:

- 1. Prof. Dr. Tasneem Pervez, Sultan Qaboos University, Oman.
- 2. Mr. Sohail P. Ahmed, Chairman of Committee on Automotive Technology Foresight 2025, Pakistan Council of Science and Technology.







# **TOPICS OF INTEREST**

Extensive participations from various areas were anticipated. Potential participants were required to present their papers related to following topics:

Automotive Design Engineering		
Automotive Manufacturing Engineering		
Fuel Cells		
Robotics		
Human-Machine Interface		
Ergonomic Design of Automotive		
Vehicle Dynamics		
Combustion Engineering		
Automotive CFD Design/Analysis		
Autonomous Vehicle		
Aerodynamics		
Automotive Textiles		
Tribology		
Hybrid Powertrains		
Electric Powertrains		







## **CONFERENCE SCHEDULE**

## Day-1 (Thursday 28th December, 2017)

Session-1 (14:30-17:10)

**Venue: Video Conference Hall (Civil Engineering Department)** 

S. No.	Event	Time
1.	Registration and seating of guests	14:00-14:30
2.	Recitation of Holy Quran	14:30-14:35
3.	Welcome Address (Dr. Maaz Akhtar, Conference Chief Organizer)	14:35-14:40
4.	Key Note Speaker (Prof. Dr. Tasneem Parvez, Sultan Qaboos University, Oman)  Trends and Approaches In Design and Development of Tailored  Materials	14:40-15:10
5.	Bilal Ahmad Siddiqui, Fahad Qureshi, Owais Baig, Usman Khan and Maaz Akhtar ( <i>Conference Paper 1</i> ) Comparison of Mass Between AISI 1020 Steel And 6061-T6 Aluminum Chassis For Identical Loading Conditions	15:10-15:30
6.	Assad Anis (Conference Paper 2)  Design Analysis and Optimization of a Crankshaft of a Tractor	15:30-15:50
7.	Tea-Break	15:50-16:30
8.	Mr. Muhammad Omer Sheikh (Conference Paper 3)  Development of Flexible Packaging in Automotive Supply Chain  System	16:30-16:50
9.	Technical Speech (Mr. Fakhar Mehmood)  Vehicle Emissions Contribute to Hazardous Air Pollution in Pakistan	16:50-17:00
10.	Technical Speech and Closing Remarks (DrIng. Syed Mushahid Hussain Hashmi)  Emerging Trends in Automotive Engineering	17:00-17:10
11.	Closing of Day-1	17:10

#### **Parallel Conference Session**

Session-2 [Parallel with Session-1] (14:30-17:10) **Venue: CIS Lecture Hall** 

S. No.	Event	Time
1.	Registration and seating of guests	14:00-14:30
2.	Recitation of Holy Quran	14:30-14:35
2. 3. 4.	Welcome Address (Dr. Faraz Akbar, Member Conference Organizer)	14:35-14:40
4.	Key Note Speaker (Mr. Sohail Ahmad, Pakistan Council of Science &	14:40-15:10







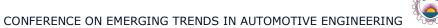


	Technology, Karachi)  Material Synthesis and Fabrication for Automotive Sector in Pakistan	
5.	Faraz Akbar, Muhammad Fozan, Nawaz Anwar, Zahra Habib, Mishaha Khalid and Shaheer Nadeem (Conference Paper 4) Comparative Study of Three Vehicle Bodies by Using Computer Aided Design (CAD): Part-I	15:10-15:30
6.	Syed Mehdi Hussain Syed Hussain, Muhammad Owais Muhammad Yaseen, Syed Arham Ali Syed Ali and M.Shahzeb Zafar M. Zafar (Conference Paper 5) Aerodynamic Evolution of Automobiles	15:30-15:50
7.	Tea-Break	15:50-16:30
8.	Muhammad Haris Yousuf, Muhammad Fahad and Maqsood Ahmed Khan (Conference Paper 6)  Build Plate Levelling of a 3D Printer	16:30-16:50
9.	Closing Remarks by Prof. Dr. Mubashir Ali Siddiqui (Chairman, Mechanical Engineering Department, NEDUET, Karachi)	16:50-17:10
10.	Closing of Day-1	17:10

## Day-2 (Friday 29<sup>th</sup> December, 2017)

Session-3 (09:10-11:45) **Venue: Main Auditorium** 

S. No.	Event	Time
1.	Registration and seating of guests	08:45-09:10
2.	Recitation of Holy Quran	09:10-09:15
3.	Welcome Address (Dr. Murtuza Mehdi, Member Conference Organizer)	09:15-09:20
4.	Faraz Akbar, Muhammad Fozan, Nawaz Anwar, Zahra Habib, Mishaha Khalid and Shaheer Nadeem (Conference Paper 7)  Comparative Study of Aerodynamic Characteristics of Three Hatchback Vehicles by Using Computational Fluid Dynamics (CFD): Part-II	09:20-09:40
	Muhammad Hasnain Quraishi, Nadeem Shafi Khan, Syed Shaheer and	
5.	Asad Ali (Conference Paper 8)  Analysis of Four Degrees of Freedom Half Car Suspension System	09:40-10:00
6.	Shaheen Perween, Muhammad Fahad and Maqsood Ahmed Khan (Conference Paper 9)  A Review of Process Development Strategies In 3D Printing	10:00-10:20
7.	Zain Mohiuddin Ahmed, Mohammad Sohaib Alam, Syed Muhammad Salman Rizvi, Muhammad Kazim and Murtuza Mehdi ( <i>Conference Paper 10</i> )  Finite Element Study of Stress Concentration Factor of Ultra High Strength Steel Under Compressive Loading	10:20-10:40
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8.	Closing Remarks by Prof. Dr. Mubashir Ali Siddiqui (Chairman, Mechanical Engineering Department, NEDUET, Karachi)	10:40-11:00
9.	Tea-Break (Venue-Senate Hall)	11:00-11:45
10.	Closing Sessions – Linking with DICE Automotive-2017 event	11:45-13:00
11.	Prayer Break (NEDUET Mosque)	13:00-14:30
12.	Lunch (Venue-Senate Hall) and Closing of Day-2	14:30-15:30







## **PICTORIAL HIGHLIGHTS OF THE CONFERENCE**











#### CONFERENCE ON EMERGING TRENDS IN AUTOMOTIVE ENGINEERING



















