

# MUNER – Italian Motor Valley Excellence for education and innovation in automotive and sustainable mobility

December 8<sup>th</sup> and 9<sup>th</sup>, 2021 Expo Dubai, Italy Pavilion - Amphitheater and Italy Pavilion – Academy

Learning by Doing and Interactive Innovation with MUNER - Motorvehicle University of Emilia-Romagna. Assemble and experience in Augmented Reality a FSAE racing car or motorcycle together with the best students and educators of the Italian Motor Valley.

During the "Learning by doing" experience, visitors will wear last generation helmets for augmented reality, sanitized in compliance with anti COVID-19 regulations, and will be guided inside a virtual space where to assemble a FSAE racing car with a fully electric or hybrid powertrain or an electric racing motorcycle. Transported to the heart of the Motor Valley, where the most prestigious vehicles in the world are built, visitors will be able to appreciate the main differences between the architectures, understand how they work and touch the flow of energy generated by the engine, following it from the source to the road. Visitors will also experience, in a true state-of-the-art anechoic chamber, the NVH behaviour of the vehicles, reading the graphs produced during the tests and comparing alternative design choices.











# **Programme**

# December 8<sup>th</sup>, 2021: Morning Session - Italy Pavilion Academy Gulf Standard Time - GST, UTC +4

10:30 – 10:40 "Introduction to MUNER - Motorvehicle University of Emilia-Romagna", Mr. Leonardo Guglielmetti and Prof. Francesco Leali

10:40 – 10:50 "FSAE and Motostudent: a learning by doing experience at MUNER", Prof. Nicolò Cavina

11:00 – 11:45\* "Learning by doing Augmented Reality Experience", Andrea Santoni, Mattia Battarra, Andrea Daicampi, Francesco Paris, Samuele Piccinini, Pietro Canuti, Valerio Mangeruga, Matteo Prati

11:55 – 12:05 "FSAE at MUNER: birth of a racing vehicle", Prof. Matteo Giacopini, Davide Zecca

12:05 – 12:15 "The silent development: NVH in an anechoic chamber", Prof. Emiliano Mucchi

## **Lunch Break**

13.30 - 14.30

#### Cibus Pavilion-M-EAting Italy Restaurant

Luncheon for Authorities, Professors and Students of the UAE and Muner to network and discover the uniqueness of MUNER's educational program

# December 8<sup>th</sup>, 2021 - Afternoon Session - Italy Pavilion Amphitheater

15:00 – 15:30 Welcoming remarks, Mr. Paolo Glisenti, Italy Commissioner to Expo 2020 Dubai

"The Motor Valley at Expo", Mr. Stefano Bonaccini, President of the Emilia-Romagna Region

MUNER promotional Video

"Introduction to MUNER - Motorvehicle University of Emilia-Romagna", Mr. Leonardo Guglielmetti and Prof. Francesco Leali

"Short Demo Session"

15:30 – 15:40 "FSAE and Motostudent: a learning by doing experience at MUNER", Prof. Nicolò Cavina











15:30 – 16:15\* "Learning by doing Augmented Reality Experience", Andrea Santoni, Mattia Battarra, Andrea Daicampi, Francesco Paris, Samuele Piccinini, Pietro Canuti, Valerio Mangeruga, Matteo Prati

16:25 – 16:35 "FSAE at MUNER: birth of a racing vehicle", Prof. Matteo Giacopini, Davide Zecca

16:35 – 16:45 "The silent development: NVH in an anechoic chamber", Prof. Emiliano Mucchi

## December 9th, 2021 - Morning Session - Italy Pavilion Academy

10:30 – 10:40 "Introduction to MUNER - Motorvehicle University of Emilia-Romagna", Mr. Leonardo Guglielmetti and Prof. Francesco Leali

10:40 – 10:50 "FSAE and Motostudent: a learning by doing experience at MUNER", Prof. Nicolò Cavina

11:00 – 11:45\* "Learning by doing Augmented Reality Experience", Andrea Santoni, Mattia Battarra, Andrea Daicampi, Francesco Paris, Samuele Piccinini, Pietro Canuti, Valerio Mangeruga, Matteo Prati

11:55 – 12:05 "FSAE at MUNER: birth of a racing vehicle", Prof. Matteo Giacopini, Davide Zecca

12:05 – 12:15 "The silent development: NVH in an anechoic chamber", Prof. Emiliano Mucchi

# December 9<sup>th</sup>, 2021 - Afternoon Session - Italy Pavilion Amphitheater

14:00 – 14:10 "Introduction to MUNER - Motorvehicle University of Emilia-Romagna", Mr. Leonardo Guglielmetti and Prof. Francesco Leali

14:10 – 14:20 "FSAE and Motostudent: a learning by doing experience at MUNER", Prof. Nicolò Cavina

14:30 – 15:15\* "Learning by doing Augmented Reality Experience", Andrea Santoni, Mattia Battarra, Andrea Daicampi, Francesco Paris, Samuele Piccinini, Pietro Canuti, Valerio Mangeruga, Matteo Prati

15:25 – 15:35 "FSAE at MUNER: birth of a racing vehicle", Prof. Matteo Giacopini, Davide Zecca

15:35 – 15:45 "The silent development: NVH in an anechoic chamber", Prof. Emiliano Mucchi











## FOR ATTENDANCE IN PERSON REGISTRATION IS REQUIRED HERE.

## TO WATCH THE EVENT IN STREAMING PLEASE CLICK THIS LINK.

#### INSTRUCTION FOR REMOTE ATTENDANCE

- \*Do you have a SteamVR compatible Virtual Reality headset? Go to https://motorvehicleuniversity.com/expo-dubai-2020/, download the installer program "MUNER VR Experience Dubai 2020.exe" and follow instructions for installation and set-up. Minimum requirements:
  - SteamVR compatible Virtual Reality headset (e.g. HTC Vive, HTC Vive Pro, Oculus Rift S, Oculus Quest with Link, Oculus Quest 2 with Link, Any Mixed Reality VR headset)
  - Workstation
    - Operative system: Windows 10 or superior
    - Graphic card: NVIDIA GTX 1060 or superior, AMD Radeon RX 480 or superior
    - CPU: Intel i5-4590 or superior, AMD Ryzen 5 1500X or superior
    - RAM: 8GB or more







