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Hosting Institution:



UnivAQ

# STUDENT TRAINING WEEKS

SEPTEMBER 11 – 22, 2023



DIIE



**CITRAMS**  
INTERDEPARTMENTAL TRANSPORTATION AND  
SUSTAINABLE MOBILITY CENTER

**EXEMERGE**  
CELLENCE



## Participating Jordanian Partner Universities



University of  
Jordan  
UJ



Jordan Univ.  
of Sc & Tech  
JUST



Mutah  
University  
MU



Tafila Tech.  
University  
TTU



Al-Balqa  
Appl. Univ.  
BAU



Al-Hussein  
Tech. Univ.  
HTU



Applied Sc.  
Univeristy  
ASU



Al-Zaytoonah  
Un. of Jordan  
ZUJ





































|                             |   |
|-----------------------------|---|
| <b>EVENT COORDINATORS:</b>  | PROF. CARLO VILLANTE – PROF. MICHELE ANATONE  |
| <b>HOSTING INSTITUTION:</b> | UNIVERSITY OF L'AQUILA, ITALY   |
| <b>LOCATION:</b>            | UNIVAQ - UNIVERSITY OF L'AQUILA – ITALY   |
| <b>CONTACTS:</b>            | <a href="mailto:CARLO.VILLANTE@UNIVAQ.IT">CARLO.VILLANTE@UNIVAQ.IT</a> - <a href="mailto:MICHELE.ANATONE@UNIVAQ.IT">MICHELE.ANATONE@UNIVAQ.IT</a> |



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## TRAINING AGENDA – DAY 1 - SEPTEMBER 11, 2023 – UNIVAQ “ROIO POLE” PIAZZALE ERNESTO PONTIERI, ROIO

|  |   |  |   |  |  |   |   |   |   |
|--|---|--|---|--|--|---|---|---|---|
| 10:00  | Participants Registration   |  |   |  |  |   |   |   |   |
| 10:30  | Greeting addresses by: DIIE Director – Prof. Eng. Walter D’Ambrogio   |  |   |  |  |   |   |   |   |
| 11:00  | Brief Presentation on the ECOCAR Project: D’Innocenzo/Calabrese   |  |   |  |  |   |   |   |   |
| 11:30  | Brief Auto-presentations by the Participants  |  |   |  |  |   |   |   |   |
| <table border="1"> <tr> <td><br/>University of Jordan<br/><b>UJ</b></td> <td><br/>Jordan Univ. of Sc &amp; Tech<br/><b>JUST</b></td> <td><br/>Mutah University<br/><b>MU</b></td> <td><br/>Tafila Tech. University<br/><b>TTU</b></td> <td><br/>Al-Balqa Appl. Univ.<br/><b>BAU</b></td> <td><br/>Al-Hussein Tech. Univ.<br/><b>HTU</b></td> <td><br/>Applied Sc. University<br/><b>ASU</b></td> <td><br/>Al-Zaytoonah Un. of Jordan<br/><b>ZUJ</b></td> </tr> </table> |   | <br>University of Jordan<br><b>UJ</b>   | <br>Jordan Univ. of Sc & Tech<br><b>JUST</b> | <br>Mutah University<br><b>MU</b>   | <br>Tafila Tech. University<br><b>TTU</b> | <br>Al-Balqa Appl. Univ.<br><b>BAU</b>     | <br>Al-Hussein Tech. Univ.<br><b>HTU</b>      | <br>Applied Sc. University<br><b>ASU</b> | <br>Al-Zaytoonah Un. of Jordan<br><b>ZUJ</b> |
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| 12:30  | Presentation of the training Agenda and of the hosting institutions   |  |   |  |  |   |   |   |   |
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| <br><b>UnivAQ</b>   | <br><b>DIIE Department</b>                 | <br><b>CITraMS</b><br>INTERDEPARTMENTAL TRANSPORTATION AND<br>SUSTAINABLE MOBILITY CENTER | <br><b>ExEMERGE</b><br>CELLENCE          |  |  |   |   |   |   |
| <b>UnivAQ</b>  | <b>DIIE Department</b>  | <b>CITraMS Inter-Departmental. Center</b>  | <b>ExEMERGE Center of Excellence</b>  |  |  |   |   |   |   |
| 13:00  | Lunch Break @ UnivAQ Canteen  |  |   |  |  |   |   |   |   |
| 14:30  | Visit to DIIE Internal Combustion Engines Laboratory  |  |   |  |  |   |   |   |   |
| 15:30  | Visit to CITraMS Virtual Driving Laboratory   |  |   |  |  |   |   |   |   |

## TRAINING AGENDA – DAY 2 - SEPTEMBER 12, 2023 – UNIVAQ “ROIO POLE” PIAZZALE ERNESTO PONTIERI, ROIO

|       |  |
|-------|--|
| 10:00 | Prof. Carlo Villante - Future scenarios for a Sustainable Hybrid and Electric Mobility |
| 11:30 | Prof. Carlo Villante -Propulsion Systems Dynamics & Control                            |
| 13:00 | Lunch Break @ UnivAQ Canteen   |
| 14:30 | Prof. Michele Anatone – ICE in Hybrid Vehicles   |



### **TRAINING AGENDA – DAY 3 - SEPTEMBER 13, 2023 – UNIVAQ “ROIO POLE” PIAZZALE ERNESTO PONTIERI, ROIO**

|       |   |
|-------|---|
| 10:00 | Prof. Fabri – Electric Drives and converters for EVs          |
| 11:30 | Prof. Fabri – Electric Motors for EVs                         |
| 13:00 | Lunch Break @ UnivAQ Canteen                                  |
| 14:30 | Prof. Feliziani/De Santis – Wireless Charging Systems for EVs |

### **TRAINING AGENDA – DAY 4 - SEPTEMBER 14, 2023 – UNIVAQ “COPPITO POLE” PIAZZALE S. TOMMASI 1, COPPITO**

|       |   |
|-------|---|
| 10:00 | Prof. Santucci – The EMERGE project on connected and automated driving  |
| 11:30 | Prof. Cinque – Application classes and communication technologies for connected vehicles  |
| 12:00 | Prof. D’Innocenzo – Machine learning and control theory for automated driving   |
| 12:30 | Prof. Tiberti – Cybersecurity frameworks for connected vehicles   |
| 13:00 | Lunch Break @ UnivAQ Canteen  |
| 14:30 | <i>Valentini, Chiochio, Persia, Zitella, Ioannucci, Stangherlin, Sulli Valentini</i><br>Visit to experimental facilities and presentation of main research projects |

### **TRAINING AGENDA – DAY 5 - SEPTEMBER 15, 2023 – EXTERNAL VISIT @ ENEA CASACCIA RESEARCH CENTER – OSTERIA NUOVA - ROME**

|       |  |
|-------|--|
| 7:30  | Leave from L’Aquila  |
| 9:30  | Visit to ENEA Labs for Low Environmental Impact Vehicles   |
| 13:00 | Lunch Break @ ENEA Canteen                                 |
| 14:30 | Visit to Historical Military Avionics Museum in Anguillara |
| 16:00 | Travel back to L’Aquila                                    |



### **TRAINING AGENDA – DAY 6 - SEPTEMBER 18, 2023 – UNIVAQ “COPPITO POLE” PIAZZALE S. TOMMASI 1, COPPITO**

|       |   |
|-------|---|
| 10:00 | Prof. Santucci - Guided Experiences On Connected Vehicles |
| 13:00 | Lunch Break @ UnivAQ Canteen                              |
| 14:30 | Guided L'Aquila city tour with the Jordanian students     |

### **TRAINING AGENDA – DAY 7 - SEPTEMBER 19, 2023 – UNIVAQ “ROIO POLE” PIAZZALE ERNESTO PONTIERI, ROIO**

|       |   |
|-------|---|
| 10:00 | Prof. De Santis / Eng. Campi – On the design of a Wireless Charging Station for EVs |
| 13:00 | Lunch Break @ UnivAQ Canteen  |
| 14:30 | Eng. Campi – Guided exercitations on Wireless Charging Station for EVs              |

### **TRAINING AGENDA – DAY 8 - SEPTEMBER 20, 2023 – UNIVAQ “ROIO POLE” PIAZZALE ERNESTO PONTIERI, ROIO**

|       |   |
|-------|---|
| 10:00 | Prof. Di Bartolomeo/Di Battista: Guided experimental activities @ DIIE ICE Labs |
| 13:00 | Lunch Break   |
| 14:30 | Prof. Fatigati/Di Battista: Guided simulation activities @ DIIE ICE Labs        |

### **TRAINING AGENDA – DAY 9 - SEPTEMBER 21, 2023 – UNIVAQ “ROIO POLE” PIAZZALE ERNESTO PONTIERI, ROIO**

|       |   |
|-------|---|
| 10:00 | Prof. Carlo Villante – Guided simulations of dynamical Vehicle energetic behavior |
| 13:00 | Lunch Break @ UnivAQ Canteen  |
| 14:30 | Prof. Carlo Villante – On the opportunity of bi-directional V2H charging devices  |

### **TRAINING AGENDA – DAY 10 - SEPTEMBER 22, 2023 – UNIVAQ “ROIO POLE” PIAZZALE ERNESTO PONTIERI, ROIO**

|       |  |
|-------|--|
| 10:00 | Prof. Villante/Anatone – Guided discussion about students experience<br>Quality evaluation of the training week<br>Q/A session |
| 13:00 | Lunch Break @ UnivAQ Canteen   |
| 14:30 | Students Certificates and Training Weeks Closure   |