



# 30

NOVEMBER  
09:00

## **SYNERGY OF INDUSTRY AND SCIENCE FOR SUSTAINABLE FUTURE**

SCIENTIFIC CONFERENCE

### **Plenary Session**

**9:00 - 11:50**

#### **Sustainable Future Career for Students: Myth or Reality?**

Moderator doc. dr. Giedrė Adomavičienė  
The session will be held in-person, room 112

### **Discussing And Sharing Research Results In Scientific Work Groups**

**12:15 - 15:00**

Online

**9:00 - 9:10**

#### **Welcome Speech**

Nerijus Varnas

**9:10 - 10:30**

#### **Panel Discussion**

Moderator - Giedrius Žukauskas  
Chief of KTK Science and Business Cooperation Centre

#### **Discussion Topics:**

- The Role of Kaunas University of Applied Engineering Sciences in Developing Students' Career Opportunities
- Companies' Expectations and Ability to Contribute to Students' Career
- Sustainable Career Development Opportunities for Students

#### **Participants of the Discussion:**

- KTK Head of Administration Nerijus Varnas
- Kaunas Region Industrialists' and Employers' Association executive director Reda Stankevičienė
- Continental Automotive Lithuania Project Material Flow Team Leader Marija Savickienė
- KTK Sciences and Business Cooperation Centre Representatives

**10:30 - 11:00**

#### **KTK and Continental Automotive Lithuania Robotics Hackathon: Challenges and Prospects**

Augustė Urbanavičiūtė, KTK International Relations Coordinator,  
Melike Caliskan, UAB Continental Automotive Lithuania Training Center and  
TMOD Team Lead

**11:00 - 11:30**

#### **KTK and Continental Automotive Lithuania Robotics Hackathon Results and Awards**

**11:30 - 11:40**

#### **Best Team of KTK and Continental Automotive Lithuania Robotics Hackathon: Presentation**

**11:40 - 11:50**

#### **Plenary Session Closing Remarks**

**11:50 - 12:15**

#### **Technical Break**

**12:15- 15:00**

#### **Work in Scientific Groups**

- Research On Sustainable Building Solutions
- Research On Engineering Solutions Of Roads
- Research On Electronics And Electrical Engineering Systems
- Research On Land And Air Transport Mechanical Solutions
- Research On Environmental Engineering
- Research On The Development Of Engineering And General Competences



**12:00-15:00**

Work in Scientific Groups

**Research On Sustainable Building Solutions**

Moderator – dr. Rosita Norvaišienė

Link to the meeting:

<https://liedm.zoom.us/j/95297283593>

**1. Life cycle assessment of sustainable building materials in Spain**

Arribas Robuffo Martin, Rosita Norvaišienė (Kaunas University of Applied Engineering Sciences)

**2. Cross-laminated timber (CLT): alternative structural material**

Matas Sragauskas, Rosita Norvaišienė (Kaunas University of Applied Engineering Sciences)

**3. Multi-criteria analysis of apartment building external wall construction**

Tomas Rakauskas, Jūratė Mockienė (Kaunas University of Applied Engineering Sciences)

**4. Architect dr. Stasys Kudokas creative legacy**

Lolita Dalbokaitė (Kaunas University of Applied Engineering Sciences)

**5. Utilization of incineration slag in civil and environmental engineering**

Ernestas Senkus, Orintas Stradomskis, Kostas Dulka (Kaunas University of Applied Engineering Sciences)

**6. Utilization of industrial waste in civil and environmental engineering**

Ramūnas Švaistys, Nojus Šipulskis, Matas Ramelis, Matas Sragauskas (Kaunas University of Applied Engineering Sciences)

**7. Evaluation of car service station floor coverings' design solutions**

Dainius Ramukevičius, Andrius Vilimas (Kaunas University of Applied Engineering Sciences)

**8. Multi-criteria analysis of special-purpose building facade installation systems**

Marija Derškutė, Violeta Medelienė (Kaunas University of Applied Engineering Sciences)

**9. Research on the effectiveness of the options for commercial building external barriers**

Modestas Kanauka, Violeta Medelienė (Kaunas University of Applied Engineering Sciences)

**10. Industrial building-base interaction analysis**

Raimondas Šadzevičius, Andrius Jonynas (Kaunas University of Applied Engineering Sciences)

**11. Sediment analysis of massive foundation subjected to dynamic loads**

Raimondas Šadzevičius, Andrius Jonynas (Kaunas University of Applied Engineering Sciences)



**12:00-15:00**

Work in Scientific Groups

**Research On Engineering Solutions Of Roads**

Moderator – dr. Kristina Pupalaiğė

Link to the meeting:

<https://liedm.zoom.us/j/92628858947>

**1. Insights into the technical project for preparation of the construction of the bridge over Šešupė in Marijampolė Aušra street and its accesses**

Narbutas Ignas (Kaunas University of Applied Engineering Sciences)

**2. Analysis of infrastructure necessary for bus rapid transit system (BRT) operation in Klaipėda**

Renatas Rainys, Regina Motienė (Kaunas University of Applied Engineering Sciences)

**3. Rolled concrete use on roads and ensuring norms**

Evaldas Jakumas (Kaunas University of Applied Engineering Sciences)

**4. Analysis and assessment of engineering solutions for alternative road barrier selection**

Kostas Dulka, Regina Motienė (Kaunas University of Applied Engineering Sciences)

**5. Need for financing maintenance and development of roads of national importance in 2022-2035**

Orestas Tamulionis, Kęstutis Vitkauskas (Kaunas University of Applied Engineering Sciences)

**6. Temperature-reducing additives in asphalt concrete production**

Meinardas Columbauskas (AB "Kauno tiltai")



## 12:00-15:00

Work in Scientific Groups

### **Research On Electronics And Electrical Engineering Systems**

Moderator – dr. Rasa Žygienė

Link to the meeting:

<https://liedm.zoom.us/j/99446809183>

#### **1. Research on the work connecting the 20 MW wind farm to electricity grid**

Gediminas Daukšys, Herbertas Žuvininkas (Kaunas University of Applied Engineering Sciences)

#### **2. Design of car door seal anti-freeze system**

Arminas Samoška, Rasa Žygienė, Laurynas Kolodzeiskis (Kaunas University of Applied Engineering Sciences)

#### **3. Design of convertible roof control system model**

Nojus Kačinskas, Rasa Žygienė (Kaunas University of Applied Engineering Sciences)

#### **4. Design of system for monitoring performance parameters of sports motorcycle wheels**

Simas Ferevičius (Kaunas University of Applied Engineering Sciences)

#### **5. Design of automatic car light control system**

Lukas Būtė, Rasa Žygienė (Kaunas University of Applied Engineering Sciences)

#### **6. Design of car blind spot monitoring system**

Domas Morkis, Rasa Žygienė (Kaunas University of Applied Engineering Sciences)

#### **7. 5G network deployment situation in Lithuania**

Rokas Tamulynas, Vitas Grimaila (Kaunas University of Applied Engineering Sciences)

#### **8. Innovations in lithium-ion batteries**

Ernestas Žioba, Skirmantas Adomavičius (Kaunas University of Applied Engineering Sciences)

#### **9. Power steering design challenges**

Augustinas Vyčas (Kaunas University of Applied Engineering Sciences)

#### **10. Analysis of pressure monitoring systems for pressure vessels used in car service**

Aivaras Kačinskis, Artūras Aleksynas (Kaunas University of Applied Engineering Sciences)

#### **11. An image recognition and object detection system for blind people assistance**

Sakin Elif, Sari Emir Furkan (Karabuk University), Hervas Andres (Rey Juan Carlos University), Laimonas Kairiūkštis (Kaunas University of Applied Engineering Sciences)

#### **12. Footwear autonomous heating system**

Rokas Tamulynas, Darius Kybartas (Kaunas University of Applied Engineering Sciences)



**12:00-15:00**

Work in Scientific Groups

**Research On Land And Air Transport Mechanical Solutions**

Moderator – dr. Andrius Dargužis  
Link to the meeting:  
<https://liedm.zoom.us/j/8126109218>

**1. Economic efficiency assessment of special equipment hydraulic component repair and maintenance station**

Šarūnas Tunikas, Kristina Burneikienė (Kaunas University of Applied Engineering Sciences)

**2. Cooling systems of hybrid cars, functionality assessment: Toyota Prius case**

Titas Minelga, Darius Juodvalkis (Kaunas University of Applied Engineering Sciences)

**3. Research on hybrid car emission reduction on city roads**

Andrius Dargužis, Darius Juodvalkis (Kaunas University of Applied Engineering Sciences)

**4. Selection of non-destructive testing methods for aircraft rim inspection**

Valdas Speičys (Kaunas University of Applied Engineering Sciences)

**5. Evaluation of pneumatic brake system components in cargo and special transport**

Martynas Masalevičius, Marius Mažeika (Kaunas University of Applied Engineering Sciences)

**6. Aerodynamic components' performance evaluation in sports cars**

Matas Kupčiūnas, Marius Mažeika (Kaunas University of Applied Engineering Sciences)

**7. Expression of quality parameters for passenger car chassis components**

Lukas Andriuškevičius, Marius Mažeika (Kaunas University of Applied Engineering Sciences)

**8. Research on performance indicators and exhaust emissions of an engine operating on second-generation biofuels and tire pyrolysis oil**

Paulius Mantvydas, Tomas Mickevičius (Kaunas University of Applied Engineering Sciences)

**9. Research on brake pad exploitation parameters**

Vytautas Kryžius, Tomas Mickevičius (Vytautas Magnus University, Kaunas University of Applied Engineering Sciences)

**10. Modeling of traffic flows**

Lukas Gedeikis, Tomas Mickevičius (Kaunas University of Applied Engineering Sciences)

**11. Research on car fault probability**

Donatas Martišius, Tomas Mickevičius (Kaunas University of Applied Engineering Sciences)

**12. Aspects of hybrid car brake system component quality parameters**

Ignas Balinskas, Marius Mažeika (Kaunas University of Applied Engineering Sciences)

**13. A Mathematical model for Go-Kart Vehicle Dynamics Simulation**

Tomas Liutkus (Kaunas University of Applied Engineering Sciences)

**14. Influence of oil additive on engine performance indicators**

Renaldas Baranauskas, Tomas Mickevičius (Alytaus kolegija/University of Applied Sciences)

**15. Assessment of accumulators' battery parameters for electric and hybrid cars**

Manfredas Malinauskas, Marius Mažeika (Kaunas University of Applied Engineering Sciences)



**12:00-15:00**

Work in Scientific Groups

**Research On Environmental Engineering**

Moderator – dr. Vilda Grybauskienė

Link to the meeting:

<https://liedm.zoom.us/j/95930088215>

**1. Analysis of hydro-technical structural damage**

Vytautas Valiūnas, Raimondas Šadzevičius (Kaunas Forestry and Environmental Engineering University of Applied Sciences)

**2. Research on accumulated precipitation in green roof layers under natural conditions**

Povilas Mackevičius, Vilda Grybauskienė (Kaunas Forestry and Environmental Engineering University of Applied Sciences)

**3. Effects of salt and sulphuric acid on grade 303 steel**

Mindaugas Tebėra, Julija Kropis (Kaunas Forestry and Environmental Engineering University of Applied Sciences)

**4. Analysis of soil PH and moisture.**

Inga Uskienė, Ernesta Liniauskienė (Kaunas Forestry and Environmental Engineering University of Applied Sciences)

**5. Filtrate cleaning by reverse osmosis in Jėrubaičiai landfill**

Vilda Grybauskienė, Gitana Vyčienė (Kaunas Forestry and Environmental Engineering University of Applied Sciences)



**12:00-15:00**

Work in Scientific Groups

**Research On The Development Of Engineering  
And General Competences**

Moderator – dr. Kęstutis Vitkauskas

Link to the meeting:

<https://liedm.zoom.us/j/93358996268>

**1. Evaluation of the expression of quality of life indicators: analysis of the situation in Lithuania and Poland**

Mateusz Skarzyński, Kristina Burneikienė (Kaunas University of Applied Engineering Sciences)

**2. Protection of Lithuanian forest resources**

Lukas Brazys, Kęstutis Vitkauskas (Kaunas University of Applied Engineering Sciences)

**3. Organisational climate from KTK students' point of view**

Jolita Bučelienė, Kęstutis Vitkauskas (Kaunas University of Applied Engineering Sciences)

**4. Creating personalized learning environment as expression of liberal education characteristics**

Judita Štreimikienė, Giedrė Adomavičienė (Kaunas University of Applied Engineering Sciences)

**5. Peculiarities of studying engineering graphics**

Ignas Čiuprinskas, Zita Ruzgienė (Kaunas University of Applied Engineering Sciences)

**6. Reverse-engineering in contemporary studies: from theory to practice**

Rūta Jankūnienė (Kaunas University of Applied Engineering Sciences)

**7. Purchasing of written papers and their submission to educational institutions: what liability is foreseen in Lithuania?**

Skaistė Mencevičienė (Kaunas University of Applied Engineering Sciences)

**8. Research on students' opinions on factors determining employer attractiveness**

Gabrielė Ivanovaitė, Eligija Narmontė (Kaunas University of Applied Engineering Sciences)