

On the Way towards Decarbonization – Green Fuels, Hybridization and Digitalization in Large Engine Applications

12TH CIMAC CASCADES

22 SEPTEMBER 2021 | GRAZ, AUSTRIA



In cooperation with



Dear friends of CIMAC,

CIMAC and the Austrian National Member Association (NMA) are pleased to invite you to the 12th CIMAC CASCADES seminar that will be held on Wednesday, September 22, 2021 at the Large Engines Competence Center (LEC), Graz University of Technology Campus.

This CIMAC CASCADES seminar provides young engineers the opportunity to get in touch with industry experts and to exchange information and network with them. The aim is to inspire and encourage students and young engineers to pursue a career in engineering.

The topic “On the Way towards Decarbonization – Green Fuels, Hybridization and Digitalization in Large Engine Applications” reflects the changing world of large engines and the approaches to creating a reliable combustion engine that has a very low environmental impact.

The main event will consist of ten short presentations by young engineers in which they describe their projects, their approaches to tackle them, the difficulties they encountered and the results they achieved.

Finally, there will be a panel discussion titled „Perspectives for Future Engineers,“ where seminar participants will have the opportunity to discuss career prospects in the large engine industry with the company sponsors.

Presenter

Marcel Lackner	Research Engineer	LEC GmbH	Austria
Bernadet Hochfilzer	Performance Engineer	INNIO Jenbacher GmbH & Co OG	Austria
Uwe Etzien	Testbed Engineer	University of Rostock	Germany
Kaj Portin	Program Manager	Wärtsilä Finland Oy	Finland
Azad Mudaffer	R&D Engineer	Robert Bosch AG	Austria
Simon Pöllmann	Research Assistant	Technical University of Munich	Germany
Frank Mair	Development Engineer PEM Systems	AVL List GmbH	Austria
Stefan Goranov	Program Portfolio Manager	Winterthur Gas & Diesel	Switzerland
Markus Kerellaj	Research Assistant	University of Applied Sciences and Arts Northwestern Switzerland	Switzerland
Michaela Mühlberger	Software Developer Digital Development	Geislinger GmbH	Austria

The young engineer who gives the most outstanding presentation will receive the CIMAC CASCADES AWARD, provided by CIMAC central secretary and the Austrian NMA.

Side program and exhibition

- Throughout the seminar day, there will be a meet and greet with companies active in the areas of engine design, engine manufacturing and engine component supplies.
- After the seminar at 17:00, the Large Engines Competence Center (LEC) and the Institute of Internal Combustion Engines and Thermodynamics (IVT) offer a virtual 3D laboratory tour where selected engine test benches will be presented.
- At 19:30, an evening reception will be held at Congress Graz which also includes the CIMAC CASCADES AWARD ceremony.

We look forward to seeing you at CIMAC CASCADES 2021 in Graz!

Rainer Aufischer / President of CIMAC Austria National Member Association

22th September 2021 Graz University of Technology Campus

08:00 – 08:30	Registration
08:30 – 08:40	Welcome address by MMMag. Dr. Andrea Hoffmann, Vice-Rector of Graz University of Technology & Dr. Rainer Aufischer, CIMAC NMA and MIBA Gleitlager Austria GmbH
08:40 – 09:10	Keynote speech Prof. Gunnar Stiesch, MAN Energy Solutions SE
09:10 – 09:15	Welcome address by Christoph Rofka, ABB Turbocharging, CIMAC Board Member
09:15 – 10:45	Session Green Fuels I - Chairman: Prof. Andreas Wimmer, LEC GmbH and Graz University of Technology Zero Emission Shipping – from Vision to the HyMethShip Technology Demonstrator Marcel Lackner Decarbonisation of Europe’s Power Generation – Hydrogen-Ready Engine Power Plants for 25% Hydrogen in Natural Gas , Bernadet Hochfilzer Experimental analysis of the influence of current and future marine fuels on particle emissions , Uwe Etzien
10:45 – 11:15	Coffee break with company presentations
11:15 – 12:45	Session Green Fuels II - Chairman: Prof. KangKi Lee, AVL List GmbH Sustainable fuels roadmap , Kaj Portin Alternative Fuels - A measure to reach climate targets , Azad Mudaffer On the Way towards Defossilization of Diesel Engines , Simon Pöllmann
12:45 – 14:15	Lunch break
14:15 – 16:45	Session Hybridization & Digitalization - Chairman: Prof. Thomas Lauer, Vienna University of Technology Hybridization and Electrification of propulsion system for Inland Water Ways , Frank Mair Hybridization in Large Engines Applications , Stefan Goranov
15:15 – 15:45	Coffee break with company presentations Development and deployment of a 2-stroke marine engine digital twin , Markus Kerellaj Novel approaches for vibration monitoring by a cloud-supported system architecture , Michaela Mühlberger
16:45 – 17:25	Panel Discussion Perspectives for Future Engineers - Discussion with the Sponsoring Company Partners
17:25 – 17:40	Closing Word Closing remarks by Dr. Rainer Aufischer, CIMAC NMA and MIBA Gleitlager Austria GmbH
17:40 – 18:00	Virtual 3D LEC/IVT laboratory tour
19:30	Evening reception and CIMAC CASCADES AWARD Congress Graz, Sparkassenplatz 1, 8010 Graz

Registration

Registration is open until September 17, 2021.

Participation fee

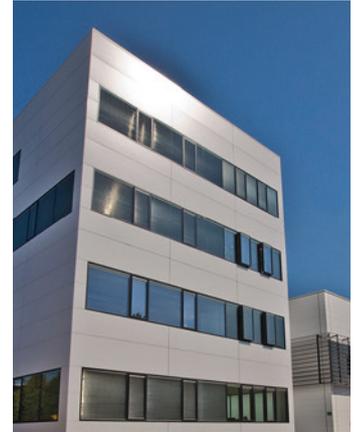
Participants: € 290 (on-site & online) (including evening reception)

University members: € 145 (on-site & online) (including evening reception)

Invited students: Free of charge (not including evening reception)

The CIMAC Cascades are planned as a face-to-face event. In order to avoid uncertainties due to COVID-19, the event will be held in hybrid form for the first time this year. We therefore offer the possibility to participate online especially for participants with travel restrictions. If COVID-related travel restrictions prevent participation on site after registration, the ticket can still be converted into an online ticket at a later stage.

Registration is coordinated by the Large Engines Competence Center (LEC), see: www.lec.at/cimaccascades2021. You will receive an official confirmation via email once you have completed registration and payment.



COVID-related information

Should there be any COVID-related changes to the event schedule, participants will be informed promptly via email.

Hotel accommodation

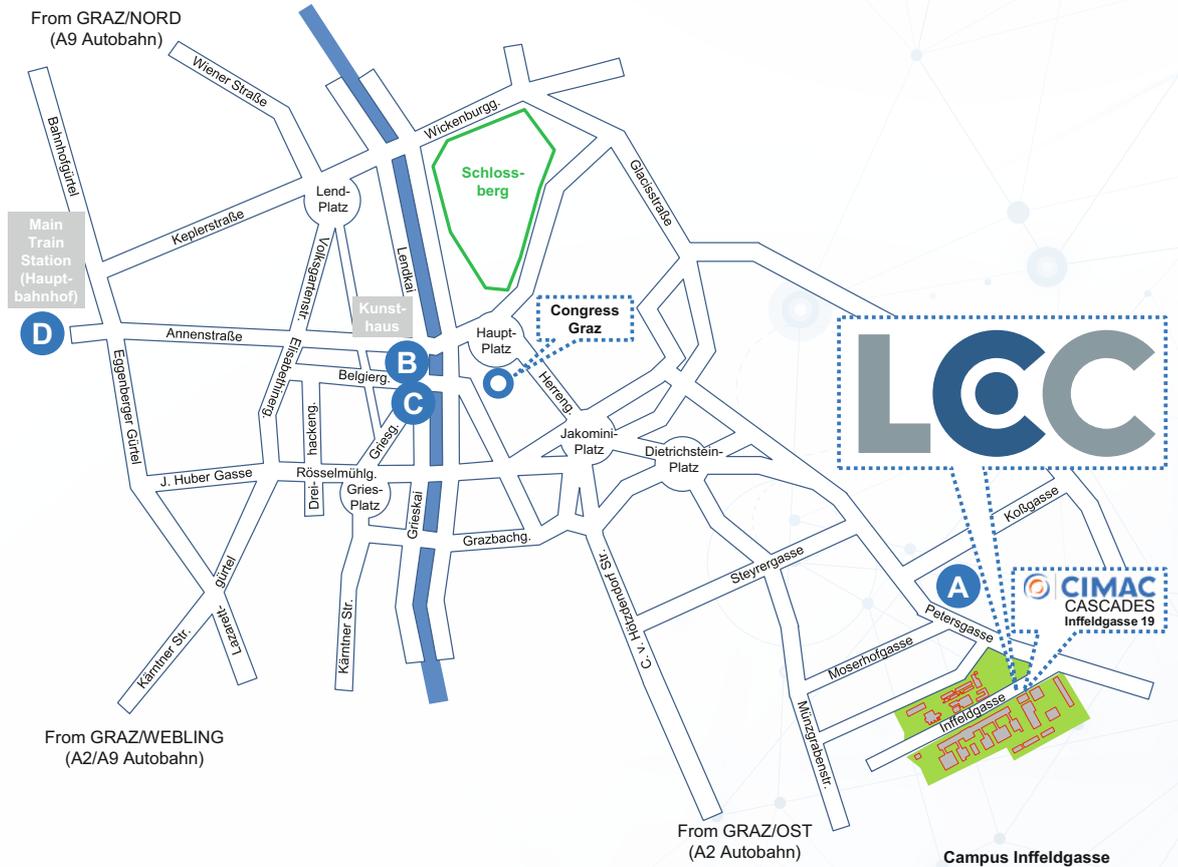
A limited number of rooms have been reserved for CIMAC CASCADES 2021. Mention the seminar to obtain the reduced rate when reserving your hotel accommodation. Further information about Graz and all hotels can be found at: www.graztourismus.at

Loc.	Cat.	Hotel	Single Room	Double Room	Contact	Website
A	A ****	Star Inn Hotel Premium Graz	€ 78,00	€ 98,00	graz@starinnhotels.com	www.starinnhotels.com
B	B ****	Hotel Wiesler	€ 133,00	€ 152,50	elisabeth.waldbauer@weitzer.com	www.hotelwiesler.com
D	C ****	Hotel Weitzer	€ 86,00– € 106,00	€ 105,50– € 125,50	elisabeth.waldbauer@weitzer.com	www.hotelweitzer.com
C	D ****	Hotel Daniel	€ 90,00	€ 109,50	elisabeth.waldbauer@weitzer.com	www.hoteldaniel.com

Seminar venue

Large Engines Competence Center (LEC)
Graz University of Technology Campus, Inffeldgasse 19, 8010 Graz

CONTACT



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The 12th CIMAC CASCADES seminar is hosted by CIMAC Austria NMA.
Contact NMA: Clemens Zinkl, email: zinkl@fmti.at

