

PRESS RELEASE



Free access Munich Aerospace MOOC

PARTICIPATE ONLINE IN THE TRANSFORMATION OF AEROSPACE

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PRESS CONTACT

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Munich/Taufkirchen – Aerospace drives technological transformation while being subjected to profound changes through digitalisation. The new online course "Digitalisation in Aeronautics and Space" allows an insight into this changing world as well as highlighting the impact on working conditions in engineering. The free Munich Aerospace Massive Open Online Course (MOOC) brings together lecturers from various research institutions and leading-edge companies aiming at professionals, students and all parties interested in technology.

How is artificial intelligence utilised in satellite research? What influence does automation have on production processes in the aviation industry? How do robotics and digitalisation change business processes in the industry? The Munich Aerospace research network and Technical University of Munich (TUM) have produced an English language online course addressing those and many other questions with regard to changing technology in aerospace. The free MOOC has been launched today on the Coursera teaching platform.

Scientists from TUM, Bundeswehr University Munich (UniBwM), German Aerospace Center (DLR) and Bauhaus Luftfahrt, as well as lecturers from companies such as Airbus and IABG, the analysis and testing provider, explain the influence of digitalisation in production, maintenance and certification processes in the aerospace industry. In her opening remarks, the Bavarian State Minister for Digital Affairs, Judith Gerlach, emphasises the important role of aerospace research for Bavaria's digitalisation strategy.



"ENABLING TRUE LEARNING SUCCESS"

The MOOC consists of three parts comprising altogether ten modules complete with videos and interactive elements. In order to provide the best learning conditions to all online participants, international students taking part in the e-learning programme Global Aerospace Campus had been testing and optimi-



sing the course series for six months. "The course is not meant to be attractive through the involvement of renowned experts from various disciplines only; for us it has always been equally important to provide for true learning success", explains Prof. Klaus Drechsler, Dean of Studies at TUM Department of Aerospace and Geodesy and Munich Aerospace Executive Board member. Participants may for instance validate their knowledge with the help of tests and tasks relevant to their occupation as well as using discussion forums for scientific exchange across borders.

Prof. Klaus Drechsler, Munich Aerospace Executive Board Member and Dean of Studies at TUM Department of Aerospace and Geodesy

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GLOBAL AEROSPACE CAMPUS CONNECTS REGIONS THROUGH EDUCATION

Drechsler heads the international e-learning and conference programme Global Aerospace Campus, uniting scientists from the Bavarian partner regions. "From São Paulo to Québec and South Africa – aerospace fans from around the world have been interacting as early as the test phase. MOOCs such as this one show that education can unite people and regions from across the planet. Thus, not only aerospace but the education sector too profits enormously from digitalisation" says Drechsler. Therefore, all learning content is freely available.

"Aerospace is one of the keys to digital technologies of the future", states Dr. Florian Herrmann, Head of the Bavarian State Chancellery and State Minister for Federal and European Affairs and Media. "I am pleased indeed about the release of the first MOOC by the Global Aerospace Campus, a programme initiated by Bavaria in 2016 within the scope of RLS Sciences. Bavaria is a dedicated partner of the international RLS Sciences network, bearing great potential as a nexus linking the sciences, business and government bodies.



FURTHER INFORMATION

MOOC "Digitalisation in Aeronautics and Space": https://www.coursera.org/specializations/aerospace Global Aerospace Campus: http://global-aerospace-campus.org/

LIST OF MODULES

- Digitalisation in Production (Prof. Klaus Drechsler/Prof. Gunther Reinhart, Technical University of Munich)
- Digitisation in Earth Observation (Prof. Volker Liebig, Airbus/University of Stuttgart, and Prof. Xiaoxiang Zhu, German Aerospace Center/Technical University of Munich)
- Space and Digitalisation (Prof. Roger Förstner, Bundeswehr University Munich)
- Human Factors 4.0: Requirements and Challenges for People, Teams and Organisations (Prof. Harald Schaub, IABG/University of Bamberg)
- Managing Maintenance, Repair and Overhaul for Civil Aircraft (Prof. Josef Mendler, IABG)
- Global Navigation Satellite Systems (GNSS) for Efficient and Flexible Air Navigation (Prof. Thomas Pany, Bundeswehr University Munich)
- Collaborative Aircraft Design (Prof. Mirko Hornung, Technical University of Munich)
- Modelling and Simulation of Aerospace Systems with Modelica (Dr. Dirk Zimmer, German Aerospace Center)
- Digital Avionics Networks (Prof. Peter Stütz, Bundeswehr University Munich)
- Digital Models and their Compression in Structure Control Interaction Problems (Prof. Horst Baier, Technical University of Munich)

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About Munich Aerospace

As a nexus of science, business and government, Munich Aerospace is the tie binding regional aerospace research together, strengthening the Munich metropolitan region as an important location for international aerospace science, technology and training. Munich Aerospace is an initiative formed jointly by the Technical University of Munich, the German Aerospace Center, the Bundeswehr University Munich and Bauhaus Luftfahrt. The Association is sponsored by the Free State of Bavaria.

About Global Aerospace Campus

Global Aerospace Campus is an e-learning and conference programme focusing on international aerospace topics, founded in 2016 by scientists from Bavarian partner regions. The first English language online course "Digitalisation in Aerospace" is publicly available free of charge on coursera.org.

About Technical University of Munich

Featuring about 600 lecturers, 10,000 other staff and hosting 43,000 students, its intensive research activities position Technical University of Munich (TUM) as one of Europe's leading technical universities. TUM focuses on engineering, natural, life and medical sciences combining all with economics and social sciences. It is an entrepreneurial university, promoting new talent and adding valueto society while benefiting from its links with strong partners from the sciences and business.