

Volunteering for the future -Geospatial excellence for a better living

ining of ethical competencies in BSc degree programs – A digital, multi-perspective, and student-centered approach

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SessionTS04E: **Blended learning in practice**









Multiperspective authors \rightarrow teachers – professionals/members of association

- Dr. Ing. Michael Mayer, senior scientist at KIT's (Karlsruhe Institute of Technology University) Geodetic Institute, active member of DVW working group "profession-education" and FIG Commission 2
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- Susanne Krüger, specialist for land consolidation at the State Office for Spatial Information and Land Development (LGL), executive member of the DVW Baden-Württemberg focusing on the young talent promotion
- **Monika Przybilla**, project manager Geoinformation Systems at the Regional Association Ruhr (RVR), Essen, long-term member and chair of DVW working group "profession-education"







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IMAGINE you are about to start learning surveying – What are your expectations?

- Fit for learning/ studying
- Fit for business
- Fit for life



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IMAGINE you are searching for qualified professionals in surveying – What are your expectations?

- Professional competencies
- Social skills / Personality

• Fit for life/ long life learning



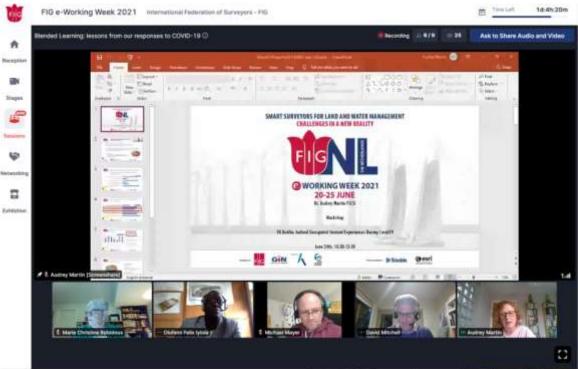
© pixabay







- Degree programs at German universities are well designed not only to achieve professional competencies but also individual ethical awareness – considered below especially for studies in surveying
- A digital teaching/learning concept has to be implemented with the embedding of guidelines, curriculum as in Karlsruhe Institute of Technology - KIT - (University Karlsruhe, Germany) German BSc degree program 'Geodesy and Geoinformatics'
- Study entry phase is essential for the individual further development







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German BSc degree program 'Geodesy and Geoinformatics' at KIT Studienplan (Curriculum)

1. Semester	2. Semester	3. Semester	4. Semester	5. Semester	6. Semester
 Höhere Mathematik I Experimentalphysik A Informatik I Datenverarbeitung (1) Vermessungskunde I 	 Höhere Mathematik II Experimentalphysik B Positionsbestimmung mit GNSS Datenverarbeitung (2) Vermessungskunde II 	 Differentialgeometrie Geodätische Datenanalyse I (1) Geoinformatik I Sensorik und Messtechnik I (1) Mathematische Modelle der Geodäsie Oberfact Quat Function	IT TOBLE	 Geodäitische Datenanalyse II (2) Sensorik und Messtechnik II (2) Photogrammetrie Geoinformatik II (2) Geoinformatik III (1) Immobility (Inter)-dis Qualifie BATI 	
30 Leistungspunkte	31 Leistungspunkte	30 Leistungspunkte	31 Leistungspunkte	29 Leistungspunkte	29 Leistungspunkte
(Credit points)					







German BSc degree program 'Geodesy and Geoinformatics' at KIT

- To support and increase personal abilities and attitudes
 - additional courses for individual development are offered to the students in the introductory phase
 - with particular attention to raising awareness of professional ethical competencies
 - Covid related circumstances have caused new learning/teaching methods online meetings







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Chronological process

DVW & KIT: platform for young talents #Kompetent in den Beruf (competently entering the profession)

- Zoom-Sessions @ KIT
 - June 25th 2020: young surveyors reported experiences from studying and choosing a career

June 17th 2021: How do professional ethics develop? an empirical attempt to answer









Competently entering the profession 2021

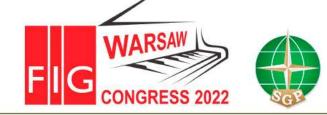
How do professional ethics develop? – an empirical attempt to answer INTERVIEWS for preparation and during the video session











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During ZOOM Meeting

Uwe Ehrhorn

- owner of a suryeying company
- member of DVW working group
 gives insights into his
 working paradigms and
 ethical principles







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Competently entering the profession

....was continued

at KIT/ZOOM Uni Karlsruhe on July 21th 2022, 4.15 pm

a multi-perspective view on the career start of the new generation

To be continued every summer.....







Deine Zukunft

14.-22. Juli







A special focus is on the <u>cooperation</u> between

University and professional associations \bullet like DVW (German Association for Geodesy, Geoinformation and Land Management) working group 1 – profession/education

XXVII FIG CONGRESS

11–15 SEPTEMBER 2022 Warsaw, Poland

enabling the students to get in contact with professionals of the geodetic community









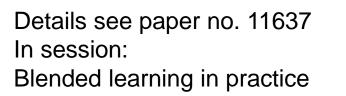






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- This cooperation sharpens the professional profile
- supports networking of young professionals and
- increases their motivation.









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Looking at the past of the "FIG-World":

1998

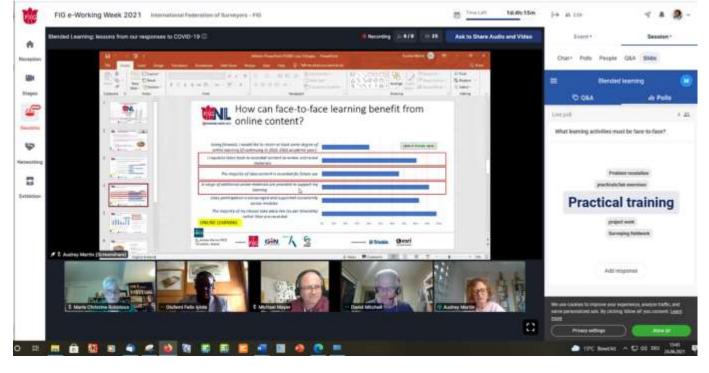
FIG published the Statement of Ethical Principles and Model Code of Professional Conduct describing the need for ethical standards for professionals (FIG publication No.17)

Commission 1

- Professional Standards and Practice

Commission 2

- Professional Education









Cooperation DVW with KIT - Benefits for both parties

- Exchange of experienced professionals with junior talents
- Thank you for listenin vier on site
- Life long learning for experienced people

Further Information: Paper no. 11637





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