



Nomination Template for
Commission Chair Elect 2021-2022
(for the positions of Chair of Commission for the term 2023-2026)

Commission no. 6 - Engineering Surveys	
Nominee	
Name	Univ.Prof. Dipl.-Ing. Dr.techn. Werner Lienhart
Country	Austria
Contact Address	Institute of Engineering Geodesy and Measurement Systems Graz University of Technology Steyrergasse 30 8010 Graz Austria
E-mail address	werner.lienhart@tugraz.at
Age	44
Degrees and educational background	2001 - 2006: Graduate studies, Graz University of Technology, PhD thesis on "Analysis of Inhomogeneous Structural Monitoring Data" (Dr. techn.) 1994 - 2001: Undergraduate studies (Surveying), Graz University of Technology, Diploma thesis on "Applications of Lumped Coefficients Approach for Selected Problems in Satellite Gravity Gradiometry" (Dipl.-Ing.) 1997 - 1998: Undergraduate studies (Engineering Surveying), Nottingham Trent University GB, Bachelor thesis on "Determination of the Local Horizon with Digital Image Processing" (BEng)
Employment history - current position - previous	<u>Current</u> since 2011: Professor and Head of the Institute of Engineering Geodesy and Measurement Systems, Graz University of Technology, Austria



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	<p><u>Previous</u></p> <p>2006 - 2011: Product Manager Innovation, Business Area Geomatics, Leica Geosystems AG, Heerbrugg, Switzerland, responsible for the development of GPS1200+ Series (GPS L5 & Galileo-capable GNSS Receivers and Antenna) and TS15 Imaging Total Station with integrated Wide-Angle Camera</p> <p>2000 - 2006: Research Associate and University Assistant, Institute of Engineering Geodesy and Measurement Systems, Graz University of Technology, Austria</p> <p>1999 - 2000: Project staff member, Space Research Institute (IWF), Austrian Academy of Science</p>
<p>Positions of trust</p> <p>- current</p> <p>- previous</p>	<ul style="list-style-type: none"> • <u>Current</u> • President of the Austrian Geodetic Commission (ÖGK) • Vice Dean of the Faculty of Mathematics, Physics and Geodesy at Graz University of Technology (TUG) • Council Member of the International Society for Structural Health Monitoring of Intelligent Infrastructure (ISHMII) • Austrian Delegate of the International Organization of Standardization (ISO) TC172/SC6 (Geodetic and surveying instruments) • Member of the Society for Calibration of Geodetic Devices (SCGD, GKGM) • Council Member of the Austrian Society for Surveying and Geoinformation (OVG) • Member of the German Geotechnical Society (DGGT) • Member of the Austrian National Committee on Large Dams (ATCOLD)
<p>Positions in FIG</p> <p>- current</p> <p>- previous</p>	
<p>Other activities in FIG</p>	<p>Participation in FIG commission 6 organized conferences as participant, presenter or scientific committee member of:</p> <ul style="list-style-type: none"> • 2003: 11th FIG Symposium on Deformation



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	<p>Measurement, Santorini, Greece</p> <ul style="list-style-type: none"> • 2011: 1st Joint International Symposium on Deformation Monitoring, Hong Kong • 2016: 3rd Joint International Symposium on Deformation Monitoring, Vienna, Austria • 2019: 4th Joint International Symposium on Deformation Monitoring, Athens, Greece
Field of surveying discipline	<p>Deformation Monitoring Network Design Testing and Calibration of Geodetic Instruments</p>
Nominees Statement:	
Why I want to be a Commission Chair and what I would like to achieve	<p><u>Visibility of Engineering Geodesy</u> Increasing the role of Engineering Geodesy in modern monitoring (Structural Health Monitoring, Condition based Maintenance etc.)</p> <p><u>International Student Competition</u> Establishment of an international geodetic student competition in Engineering Geodesy in close cooperation with the FIG Young Surveyors Network</p> <p><u>Dissemination</u> FIG publication on guidelines for monitoring of civil structures and natural phenomena by surveying methods</p> <p><u>Engineering Geodesy 4.0</u> Setting up a new working groups or task forces which cover modern aspects of Engineering Geodesy e.g.</p> <ul style="list-style-type: none"> • Conceptual: BIM, Digital Twins • Algorithmic: Machine Learning • Visualization of data and interaction with data: AR, VR
What I can offer to FIG in support of the aims and objectives of the Commission	<p>Experience in the development, installation and operation of monitoring systems of natural phenomena and civil infrastructure. Currently I am responsible for</p> <ul style="list-style-type: none"> • The permanent on-line monitoring of a landslide • The permanent on-line monitoring of a pipeline • The permanent on-line monitoring of a tunnel • The permanent on-line monitoring of a retaining wall





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	<ul style="list-style-type: none"> • Additional several epoch-based monitoring systems of water dams, bridges etc. <p>Practical experience (laboratory investigations and field applications) with a wide range of sensors including: totals stations, static and mobile laser scanners, tilt sensors, fibre optic sensors, geodetic gyroscopes, GNSS sensors, accelerometers etc.</p> <p>International scientific network with regards to deformation monitoring e.g. Council Member of the International Society of Structural Health Monitoring of Intelligent Infrastructure (ISHMII), Member of German Geotechnical Society, President of Austrian Geodetic Commission etc. This network helps to transfer knowledge especially in the development of standards and guidelines</p>
My key skills	Strong technical background Capable of leading an organization (I am head of institute and president of the Austrian Geodetic Commission, Communicative
Any other general comments	

Nominator	
Name of member Association	OVG- Austrian Society for Surveying and Geoinformation
Name and title of contact person	Dipl.-Ing. Julius Ernst President
Contact address	Austrian Society for Surveying and Geoinformation 1020 Wien, Schiffamtsgasse 1-3 Austria
Email address	julius.ernst@bev.gv.at office@ovg.at
Nominator's statement	
Why the association	Traditionally, the Austrian Society for Surveying and Geoinformation (OVG) has a close cooperation with the FIG.



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wants to nominate Nominee	<p>Univ.Prof Dr. Werner Lienhart is an expert on engineering surveys and he is council member of the OVG. As participant of several FIG events, he is familiar with FIG.</p> <p>We know Werner Lienhart as an active and innovative council member of OVG and we are convinced that he also will bring these qualities as chair of Commission 6.</p> <p>His contacts to research, academics and profession are good prerequisites for a successful work as commission chair.</p>
Support the Association can offer the Nominee (financial and other)	<p>OVG will subsidize the travel activities required for carrying out properly the chairship of Dr. Werner Lienhart. In addition, members of OVG acting in the past as officers in FIG will share their experiences with him.</p>
Any other comments	---
Signed I hereby certify the above is true and correct	
Date	05.05.2021
Nominee	
Nominator	<p>Austrian Society of Surveying and Geoinformation (OVG) 1020 Vienna, Schiffamtsgasse 1-3</p>  The President: DI Julius ERNST