



Dr. Vishwanath Karad
MIT WORLD PEACE UNIVERSITY | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS



ASSOCIATION
INTERNATIONALE DES TUNNELS
ET DE L'ESPACE SOUTERRAIN
AITES

ITA
INTERNATIONAL TUNNELLING
AND UNDERGROUND SPACE
ASSOCIATION



**Virtual International
Workshop
'Advances in Design and
Construction of Tunnels'**



**1st February to
4th February 2022**



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**TATA
PROJECTS**



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India is one of the fastest growing markets for tunnel and underground construction due to various infrastructure projects underway throughout the country. However there has been a dearth of qualified tunnel engineers in India. To address this need we started M.Tech. (Tunnel Engineering) program at MIT World Peace University, Pune (First of its kind in India). Before that we conducted 'Certificate Program in Tunnel Engineering' (First of its kind in India) at MIT-WPU, Pune in collaboration with Montan University in Leoben, Austria.

It is decided to organize four days International Online Workshop at MIT-World Peace University, Kothrud, Pune in association with **International Tunnelling and Underground Space Association (ITA) and ITA-Committee on Education and Training (ITA - CET)**. This virtual workshop will take place from 1st February to 4th February 2022.

The Speakers of the workshop are renowned tunneling professionals. These speakers are selected and appointed by the **ITA-CET Committee**. The theme of this virtual workshop is '**Advances in Design and Construction of Tunnels**'. The tentative details of speakers are shown on next page.

ITA-CET Committee is headed by **Dr. Robert Galler, Chairman, ITA-CET**. Dr. Galler is world renowned expert in NATM. He is a Professor at the Montan University, Leoben in Austria and Head of the large-scale underground research, development, training and education centre ZaB – 'Zentrum am Berg'. He worked as a consulting engineer in several international large-scale projects and became project leader for the tender design of several tunnel projects along the northern access route to the Brenner Base Tunnel. He also was the project manager of an international JV for the Brenner Base Tunnel with a length of about 57km including all fields of tunnel design from tunnel safety, aerodynamics, electrical design to civil and environmental design. Dr. Galler is the chairman of the ITACET Steering Committee and representative of ITA Austria, as well as, a member of the board of the Austrian Society for Geomechanics.



Resource Persons of the Work Shop



Mr. Michel Deffayet
Vice Chairman,
ITA-CET Committee
Manager Centre for Tunnel
Studies (CETU)

Michel Deffayet started his career in the field of underground works with an involvement in many French road tunnel projects. In 1995, he became the Head of the Environment and Infrastructure Engineering Department of the Centre for Technical Infrastructure Studies in Metz (France), and supervised several motorway project studies.

Since 2004, he has been the Director of CETU with a personal involvement in all CETU's activities, covering civil engineering, equipment and operation-related aspects of tunnels. He has notably been involved in the production of regulatory texts and guidelines, research and development in the field of underground works, consultancy and assistance for tunnel owners and training actions.

He is also the Government representative in the National Commission for the Evaluation of Infrastructure Safety and President of the French Association of Tunnels and Underground Space.



Mr. Søren Degn Eskesen
Associate Director – Tunnels,
COWI
Past President,
ITA-AITES

He is an effective project manager with experience from multidisciplinary projects working for public clients as well as private clients and consortia of international contractors on several high profile jobs.

Mr. Eskesen is an experienced tunnel advisor with both technical and non-technical knowledge of development of projects from feasibility studies, to tender strategies, detailed design and Construction Supervision

Professional Credentials:

Mr Eskesen was previously the Vice President of the International Tunnelling and Underground Space Association, ITA and President of the Danish Society for Tunnels and Undergrounds Works, which is the National Danish representative of ITA

Mr Eskesen has been leading the development of the highly accredited ITA "Guidelines for Tunnelling Risk Management" issued by ITA working group 2 and has been the author of several articles and papers on the development of tunnel and underground projects. He has further given presentations at a high number of international conferences, ITA-CET training courses as well as the ITA credited Master Course in TBM Tunnelling.



Mr. Piergiorgio Grasso

Graduating from the 'Politecnico di Torino' of Italy in civil engineering, He began his engineering career in 1975. He is the founder, President & Principal Engineer of Geodata since 1984, which is a consultancy company specialised in the design and management of underground works, both in urban environments and in mountain areas. He was an ITA Executive Council member and was a past ITA Vice President. He also served the ITA Working Group 17 on "Long and Deep Tunnels" as its animateur and tutor. He is one of the ITA experts and the ITACET Foundation Vice President.

Resource Persons of the Work Shop



Mr. Detlef Jordan
Business Manager
Robbins Europe GmbH

Detlef is responsible for the operation of the subsidiary, sales, and business development within the European region for all Robbins products and related equipment and services.

After completing his military service as a German Army Lieutenant, Detlef graduated with a degree in Mechanical Engineering from Ruhr Universität Bochum in Germany. In 1983, Detlef started his professional life as a Design Engineer with a medium sized company for heavy machinery and later working as a Project Engineer in the company's product segment for construction machines.

In 1985, he moved on to HOCHTIEF Construction AG head office in Germany and took the position as a Mechanical Engineer in charge for specification, procurement, launch and operation of Tunnel Boring Machines (TBM) and other machinery and equipment for underground construction. He worked in and serviced domestic and international TBM projects and in the position of Site Chief Mechanical Engineer.



Dr. Eivind Grøv
Chief Scientist at SINTEF,
Professor
**University of Science and
Technology in Trondheim**

Eivind Grøv graduated from NTNU (University of Science and Technology in Trondheim) in 1983, with an MSc. in Geotechnical Engineering. Grøv has worked as consultant in the tunnelling industry covering tunnelling and underground applications for many different purposes like oil/gas storage, hydropower, road/railway tunnels and subsea tunnels in rock. His experience includes expert services to a wide range of projects in more than 20 countries.

Grøv is now Chief Scientist at SINTEF and Professor in his fields at NTNU lecturing/supervising students at MSc and PhD levels. He has been invited as a lecturer and keynote speaker on several international conferences with a large publication production.

Grøv is a past President of the Norwegian Tunnelling Society and is an Honorary member of the society. He is also a past President of the Norwegian Tunnelling Network. He is past Vice President of the ITA, concluding a period of 6 years in the Executive Council and is Honorary Affiliate Member of ITA. Grøv has held numerous duties in international organisations and is currently an Animateur of the ITA Working Group on "The use of sprayed concrete". He also leads several tasks within the Norwegian Tunnelling Society.

Resource Persons of the Work Shop



Dr Donald Lamont
President,
Hyperbaric and Tunnel Safety
Ltd.

Donald graduated in 1971 and worked for 13 years supervising the construction of roads, bridges, pipelines and small diameter tunnels. He was HSE's head of tunnel and ground engineering from 1987 to 2010 and Inspector for the Channel Tunnel Safety Authority till 2011. He now runs his own specialist consultancy, Hyperbaric and Tunnel Safety Ltd.

Donald chairs the BS committee for BS 6164 "Safety in Tunnelling" and sits on the European Standards committee for tunnel machinery safety. He is the Animateur of ITA's Working Group 5 - Health and Safety in Works. In 2007, he was awarded the British Tunnelling Society's James Clark Medal for his career contribution to UK tunnelling and in the 2011 was appointed an MBE for services to health and safety in tunnelling.



Mr. Klaus RABENSTEINER
President,
Geodata Survey & Monitoring
Group

Born in 1958 in Austria. Mining Engineer graduated from Mining University Leoben, Austria. First years of the professional career working in university research projects. Co-founder (1987) and since then President of Geodata Survey & Monitoring Group (www.geodata.com). Klaus has been active as lecturer at Technical University Vienna for several years. He served as a member of the Executive Board of the Christian Doppler Research Association, Vienna for four years. Leader of ITAtech Working Group "Monitoring" since 2015.

Geodata Survey & Monitoring Group is a specialist supplier of tunnel surveying and monitoring systems and services with a track record of hundreds of international survey and monitoring projects of all sizes, mainly in underground construction. The company also provides advanced guidance systems for TBM and roadheaders as well as drill jumbos. Geodata is a leading provider of integrated tunnel information systems, contributing to successful projects around the world. Besides numerous road and railway tunnels and hydropower projects, recent assignments include Crossrail and Thames Tideway in London, Cityringen in Copenhagen, NorthConnex and WestConnex in Sydney and metro lines in Tel Aviv, Delhi, Buenos Aires, Santiago de Chile and Vienna.

Dr. Karin Bäßler,
Head of Business
Development and
Geotechnics & Consulting,
Traffic Tunnelling Group,
Herrenknecht AG, Germany

Karin graduated as a civil engineer from Technical University of Karlsruhe, Germany (today KIT, Karlsruhe Institute of Technology) and completed post graduate studies with her PhD at the Colorado School of Mines, USA. She joined Herrenknecht in 1997 and since then has specialized in geotechnology, research and development. Since 2008 Karin has managed the Geotechnical and Consulting department for the Traffic Tunnelling Division at Herrenknecht's head office in Schwanau, Germany and is responsible as Head of Business Development. She is an invited lecturer for postgraduate degrees at Universities in France, Germany, Italy and the USA on the topic of Tunnelling and Tunnel Boring Machines.

Resource Persons of the Work Shop



Dr. Elena Chiriotti,
CEO,
INCAS Partners,
Paris France

The experience collected by Dr. Elena over more than 20 years of professional life include : risk assessment and risk management; design and construction follow-up of underground works, in particular mechanized tunneling and conventional tunneling works in difficult conditions and urban areas; construction methods; tunnel safety; quantitative assessment of tunneling-induced effects; assessment of risk of damage; ground treatment and reinforcement of existing structures; design of monitoring systems and data interpretation; numerical modelling.

Recent projects on which Mrs. Chiriotti has worked include: Hanoi metro; Cairo metro; Bucharest Metro Line 5; Tbilisi Metro; Copenhagen metro (Cityringen); Makkah Metro; Greater Paris Metro Line; the validation studies of the railway tunnel under the Strait of Gibraltar, currently the most challenging tunnel project planned in the world.



Dr. Chrysothemis Paraskevopoulou,
Professor,
University of Leeds.

Chrysothemis is a Tunnel/Mining Engineer (MEng) with post-graduate studies (MSc) in Tunnelling from NTUA (GR).

In 2016, she completed her PhD which involved working in a joint Research Project between Queen's University and ETH Zurich. In 2017 she was appointed Assistant Professor at the University of Leeds (UK). Chrysothemis works as an Independent Consultant on geotechnical and tunnelling engineering projects and in the past as Tunnel Engineer. In April 2018, Chrysothemis was elected to be in the International Tunnelling Association, ITA Young Professionals steering committee representing the UK. She is also an active member in the Greek (GTSym) and the British Tunnelling Society Young Members Group (BTSym), member of ITACUS and ITA-CET steering committee. In 2019, Chrysothemis got tenure and in 2020 Chrysothemis successfully completed her MBA at LUBS as she is a strong believer of life-long training.



Dr. Nicolas Berthoz
Engineering Geology and
Geotechnical Design
Department,
CETU, France

Nicolas Berthoz completed a PhD devoted to the physical and numerical modeling of Earth-Pressure Balanced Shield, and worked for three years as a "surface" geotechnical engineer (foundations, retaining walls, etc.). Its main areas of expertise are as follows: (i) geotechnical surveys and models, (ii) tunneling techniques (conventional, tunnel boring machine, micro-tunneling), (iii) geotechnical and structural design of tunnels, (iv) numerical modeling of civil engineering problems, (v) displacements and vibrations caused by excavation on neighbouring structures.

Its missions concern: (i) studies and appraisals within the framework of numerous French projects, (ii) researches, in particular concerning the movements induced by tunnels on neighbouring structures, (iii) training in engineering school.

WHO SHOULD ATTEND?

Tunnel Engineers, Civil Engineers, Civil Engineering UG and PG students, Faculty Members of Civil Engineering should attend.

WHY TO ATTEND?

It is great opportunity for young as well as experienced Tunnel engineers to interact and learn from stalwarts in Tunneling Industry. To know more about latest design and construction techniques, materials, equipment and software used in Tunneling.

OUTCOME OF THE WORKSHOP

After successful completion of the workshop the participant will gain valuable inputs required to design a tunnel economically and supervise its construction effectively.

REGISTRATION

To register for this workshop, visit the following link and fill in the form.

[Registration Form link - https://forms.gle/WXUpsSCXiiLgwLAR9](https://forms.gle/WXUpsSCXiiLgwLAR9)

Or mail your details to sandeep.potnis@mitpune.edu.in

Category	Registration fee
Working Professionals and Faculty Members	Rs. 500
Students and TAIym members	Rs. 200
Foreign Delegates	USD 20

The registered participants having attendance more than 75% will be issued 'ITA-CET Certificate' at the end of the workshop.

For more information please contact:

Yogiraj Sawant (9130122121), Shikher Thakur (8750442603),

Chirag Upadhye (9604077711), Vishwaraj Sisodiya (9028004477),

Aditya Mahale (9619364398), Khemali Firke (9820849540).





Inauguration of MIT School of Subsurface (Tunnel) Engineering at the august hands of Hon. Shri. Nitin Gadkari, Union Minister for Road Transport & Highways, Govt. of India.





MIT WPU has signed an MOU with the Indian Army recently for collaboration in Research and Training in presence of Maj. General Vivek Kashyap, VSM. State of art Center of Excellence will be set up at MIT WPU for Research and Training in Tunneling and other areas.



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