PROGRAMME

30 OCT > MONDAY

09:20 – 10:00  KEYNOTE LECTURE
Rain and wind induced vibration and dry galloping of stay cables - Its mechanism and aerodynamic stabilization -
Masaru Matsumoto, Hiroshi Ishizaki, Tomo Tanaka

10:00 – 11:00  SESSION S1
CABLE VIBRATIONS, SOURCES AND RESPONSE ASSESSMENT

Effect of low-frequency vortices on dry galloping of bridge stay cable
Hiroshi Katsuchi, Vo Duy Hung, Hitoshi Yamada

Wake-induced vibration of parallel cables with spiral protuberances
Ippei Sakaki, Tomomi Yagi, Satoshi Ogawa, Yishan Yuan, Hiromichi Shirato

An investigation of large-amplitude cable vibrations at critical and supercritical Reynolds numbers
Sean McTavish, Kunihiro Yamauchi, Hiroshi Sato

11:40 – 13:00  SESSION S2
WIND TUNNEL, FULL SCALE AND LABORATORY TESTING OF STAY CABLES

Wind tunnel tests on free to respond bridge stay cable models
Guy L. Larose, Sean McTavish, Harold Bosch, Stoyan Stoyanoff, Jasna B. Jakobsen, Jungao Wang

Lift and drag loads on inclined stay cables with helical fillet
Olivier Flamand

Aerodynamic performance of a cactus-shaped cable under static wind tunnel tests
Jungao Wang, Jasna Bogunović Jakobsen, Sean McTavish, Guy L. Larose

Preliminary evaluation of the ice shedding properties of bridge cable surfaces
Lubomir Matejicka, Christos T. Georgakis, Holger H. Koss, Andreas Schwarz, Philipp Egger

14:30 – 15:10  KEYNOTE LECTURE
Cable aerodynamics in Eurocode – An engineering point of view
Allan Larsen
15:10 – 16:30  SESSION S3
WIND TUNNEL, FULL SCALE AND LABORATORY TESTING OF STAY CABLES

Effects of spatial variations of shape and turbulence on wind response of stay cables
Stoyan Stoyanoff, Guy Larose, Zachary Taylor, Pierre-Olivier Dallaire, Harold Bosch

Setup for the measurement of drag and lift forces on cables at high Reynolds numbers
Olivier Flamand

Development of a robot to measure stay cable roundness
Harold Bosch, James Pagenkopf

Effects of cross-sectional shape distortions on bridge stay cable aerodynamics
Heidi Christiansen, Guy L. Larose, Jasna B. Jakobsen, Harold R. Bosch

17:00 – 18:20  SESSION S4
NUMERICAL MODELLING AND SIMULATION IN TRANSMISSION LINES

Analytical method for buffeting response of transmission conductor under wind load
Dahai Wang, Xinzhong Chen, Shuguo Liang

Evaluation of phase-to-phase clearances of transmission line conductors under turbulent wind
Louis-Philippe Parent, Sébastien Langlois, Kahina Sad Saoud

Motion magnification techniques for aeolian vibration measurements
Mohamad Ghaffarain Niasar, Boris Adum, Peter Sidenvall, Lillemor Carlshem, Mikko Jalonen, Magni Pálsson

Time-domain numerical model of substation conductor span subjected to short-circuit loading
Mathieu Boudou, Sébastien Langlois, Kahina Sad Saoud, Christine Yang
09:00 – 09:40 **KEYNOTE LECTURE**
Aerodynamic behaviour of cables at third Bosphorus bridge - observations on site
*Vincent de Ville de Goyet*

09:40 – 11:00 **SESSION S5**
FATIGUE ANALYSIS AND DIAGNOSIS, ASSESSMENT OF FORCES AND VIBRATION CHARACTERISATION

Long-term performance of suspension bridge main cables and hangers
*Peter Sluszka*

Induced vibrations
*Robert Zueck*

A modal analysis method to identify tension in stay-cables equipped with additional unknown masses in the span
*Vincent Denoël*

Estimation of the tensile force in the stay-cables of Salgueiro Maia bridge using ambient vibration tests
*Ana Joaquim, Corneliu Cismasu, Filipe Santos, Elsa Caetano*

11:40 – 13:00 **SESSION S6**
DAMPING, VIBRATION CONTROL AND PERFORMANCE

On the modelling of internal damping in stranded cables
*Francesco Foti, Luca Martinelli, Federico Perotti*

Galloping critical wind velocity of a taut cable-damper system
*Cung H. Nguyen, John H.G. Macdonald*

Design of negative stiffness dampers for bridge stay cable vibration control
*Majd Javanbakht, Shaohong Cheng, Faouzi Ghrib*

Hysteresis modelling of a pendulum damper at non-stationary vibrations
*Alexander Danilin, Jean-Louis Lilien, Alexander Vinogradov*

14:30 – 15:50 **SESSION S7**
NUMERICAL AND EXPERIMENTAL ASSESSMENT

Numerical study on flow structure around an inclined circular cylinder at Re=10^{-5}
*Ran Wang, Shaohong Cheng, David S-K. Ting*

A numerical study on super-harmonic responses of mooring cables subjected to top end excitations
*Lin Chen, Biswajit Basu*

Investigation on wind-induced dynamic responses of long-span transmission line by wind tunnel test
*Shuguo Liang, Dahai Wang, Shuliang Wang, Lianghao Zou*

Continuous dynamic monitoring of an overhead transmission line
*Fernando Bastos, Elsa Caetano, Daniela Rocha, António Cardoso*

16:20 – 17:50 **FORUM OF DISCUSSION**