ΠΡΟΣΚΛΗΣΗ

Ο Πρύτανης του ΑΠΘ **Καθηγητής Π. Μήτκας**
Ο Κοσμήτωρ της Πολυτεχνικής Σχολής ΑΠΘ **Καθηγητής Κ. Κατσάμπαλος**
Ο Πρόεδρος του Τμήματος Πολιτικών Μηχανικών ΑΠΘ **Καθηγητής Π. Πρίνος**

Σας προσκαλούν στην Αναγόρευση του Προέδρου της National Natural Science Foundation της Κίνας

Wei Yang

ως Επίτιμου Διδάκτορα της Πολυτεχνικής Σχολής - Τμήμα Πολιτικών Μηχανικών
την Τρίτη, 13 Ιουνίου 2017 και ώρα 10:00, στην Αίθουσα Τελετών της Παλαιάς Φιλοσοφικής Σχολής ΑΠΘ

INVITATION

The Rector of AUTh **Professor P. Mitkas**
The Dean of the Faculty of Engineering of AUTh **Professor K. Katsampalos**
The Chairman of the Civil Engineering Department of AUTh **Professor P. Prinos**

Invite you at the Nomination of the President of the National Natural Science Foundation of China

Wei Yang

as a Honorary Doctor of the Faculty of Engineering of AUTh – Department of Civil Engineering
on Tuesday, 13 June 2017 at 10:00, at the Ceremony Hall of the Old School of Philosophy of AUTh

Professor Wei Yang, President of the National Natural Science Foundation of China, was born on February 16, 1954, in Beijing, China. He completed his undergraduate study at Northwestern Polytechnic University/China in December 1976, received his MS degree from Department of Engineering Mechanics, Tsinghua University/China in April 1981, and Ph.D. degree from Division of Engineering, Brown University, USA, in June 1985. He was promoted to the rank of full professor in December 1989, as the youngest professor in Tsinghua University then. In December 1993, Professor Yang was appointed as the Director of the Failure Mechanics Laboratory of the Ministry of Education in China. He served as the Department Head of Engineering Mechanics from 1997 to 2004, and the Executive Dean of Aerospace School from May to September of 2004 at Tsinghua University (referred to as the MIT of China). From 1999 to 2004, he was endowed as a Yangtze Professor of the Chinese Ministry of Education. He chaired the Academic Committee of Tsinghua University from April 2004 to August 2006. From September 2004 to July 2006, he served as the Director-General of the Academic Degrees Committee of State Council of China, and also as the Head of Directorate of Graduate Education in the Ministry of Education in China. From August 2006 to February 2013, he took the position of the President of Zhejiang University. Since February 2013, he has been appointed as the President of the National Natural Science Foundation of China (NSFC).

Professor Yang's honors and awards include the "May Fourth Youth Medal" from Beijing Municipal Government and the Chinese Youth Award of Science and Technology in 1988, the State Council Special Government Allowance in 1992, the National Excellent Teacher Award in 1993 as one of the 10 best teachers nominated by Beijing Municipal Government, the Chinese Young Scientists Award and the title of "National Young and Mid-aged Experts with Outstanding Contributions" in 1994, and the National Mayday Medal in 2002. His achievement "Macroscopic and Mesoscopic Constitutive Theory and Fracture of Solids" enabled him to win the 3rd-Class National Natural Science Award in China (1995) and "Mechatronic failure and Constitutive Relations of Ferroelectric Ceramics" won him the 2nd-class National Natural Science Award (2005), both as the first winner. He was the recipient of the 2008 Award for Mathematics and Mechanics by Ho Leung Ho Lee Foundation, and the Zhou Peiyuan Award for Mechanics in 2011. He received an Honorary Degree of Doctor of Engineering in 2011 by Hong Kong Polytechnic University, and an Honorary Degree of Doctor of Science in 2012 by Brown University, and an Honorary Degree of Doctor of Law in 2013 by Bristol University. In November 2016 he received the FLOGEN Fray International Sustainability Award (also awarded in 2014 to the 2011 Nobel Laureate in Chemistry D. Shechtman, and in 2015 to the 2010 Nobel Laureate in Chemistry E. Negishi and AUTh Professor E.C. Aifantis).

Currently, he chairs the committee for the National Natural Science Award. Internationally, Professor Yang is one of the eight Bureau Members of International Union of Theoretical and Applied Mechanics (IUTAM) and served as the Chairman of Far East and Oceanic Fracture Society (2004-2008).

He is internationally known for his important contributions in the fields of Fracture Mechanics, Mechatronic Reliability and Micro/Nanomechanics. He is the author and co-author of over 10 books and over 250 technical papers in internationally refereed journals. He has supported and worked for collaborations with universities in the United States, Europe, Japan and elsewhere. His own postgraduate students have greatly extended his international reach with more than a dozen holding engineering faculty positions in the United States and Europe. Indicatively, some of them include Professors Honghui Yu, Wei Lu, Yanfei Gao, Teng Li, Wei Hong, Ting Zhu, Shaoxing Qu, Nanshu Lu and Tiefeng Li, leading groundbreaking research in academic institutions throughout the world.

His dedication to research and education has impacted various fields, such as:

Multiscale modelling and simulation

The dual nature of the material structure, i.e. continuous when viewed at large length scales and discrete when viewed at an atomic scale, leads to complex mechanical behaviors. The continuum and atomistic analyses methods, as well as multiscale materials modelling approaches, are crucial to understand the interdependences and the as-resulted structure-property correlation. Recent efforts in unveiling important mechanical and physical properties at various length scales have greatly shaped material design and optimization approaches by exploration of size dependencies. Multiscale modelling and simulation are playing an ever-increasing role in these areas to reduce development costs and manufacturing times.

Small scale mechanics

The study of small-scale mechanical behavior is at the forefront of research in materials science and applied mechanics. The impetus for the significant current activity in this field comes from the need to understand the critical roles of elasticity, plasticity, and fracture in small structures used in many modern technologies, including thin films for microelectronic devices, thermal barriers and coatings. In addition, mechanical phenomena in small-scale biological structures offer enticing opportunities to researchers in materials science and applied mechanics, who can investigate these phenomena with concepts and methods that have not previously been exploited by biologists.

Mechanisms of soft actuating materials and soft robots

Soft materials comprise a variety of physical systems that are deformed or structurally altered by thermal or mechanical stress of the magnitude of thermal fluctuations. They include liquids, colloids, polymers, foams, gels, granular materials, liquid crystals, and a number of biological materials. These materials share an important common feature in that predominant physical behaviors occur at an energy scale comparable with room temperature thermal energy. Emerging technologies, such as soft robots, wearable devices and flexible electronics, make massive use of soft materials and put demanding requirements on the reliability. Experiments, theoretical modelling and simulation are crucial to understand the mechanical behaviors such as deformation, fracture and fatigue.

ΠΡΟΓΡΑΜΜΑ ΤΕΛΕΤΗΣ

- Προσφώνηση από τον Κοσμήτορα της Πολυτεχνικής, Καθηγητή *Κωνσταντίνο Κατσάμπαλο*
- Προσφώνηση από τον Πρύτανη, Καθηγητή *Περικλή Μήτκα*
- Προσφώνηση από τον Πρόεδρο του ΤΠΜ, Καθηγητή *Παναγιώτη Πρίνο*
- Έπαινος του τιμώμενου (Laudatio) από τον Καθηγητή Μηχανικής *Ηλία Αϋφαντή*
- Αναγόρευση και Επίδοση Διασήμων
- Αντιφώνηση και Ομιλία του Τιμώμενου, Καθηγητή *Wei Yang*, με θέμα:
  "Research Landscape of Mainland China – From Rejuvenation to International Collaboration"
- Λήξη Τελετής/Δεξίωση: 12:00-13:00

CEREMONY PROGRAM

- Address by the Dean of Engineering, *Konstantinos Katsampalos*
- Address by the Rector of Aristotle University, *Perikles Mitkas*
- Address by the Chairman of Civil Engineering, *Panayotis Prinos*
- Laudatio by Professor of Mechanics *Elias Aifantis*
- Nomination
- Address and Lecture of the Honoree, Professor *Wei Yang*, entitled:
  "Research Landscape of Mainland China – From Rejuvenation to International Collaboration"
- End of Ceremony/Reception: 12:00-13:00