# A JOINT SEMINAR ON

# " POLYMERIC MATERIALS IN GREEN BUILDING "

23 November 2016

# **Organized By**

American Concrete Institute (Singapore Chapter)



# THE PLASTICS AND RUBBER INSTITUTE OF SINGAPORE



**G**reen building already makes up a significant share of global construction activity. Therefore, professionals from the building industry require the latest information & trends to further promote the adoption of sustainable construction methods and materials.

This joint seminar is such an excellent platform for people from the building industry, in particular, for those interested in or working on polymeric materials for building, such as researchers, managers and other professionals. Via sharing the latest and the most innovative insights polymeric aspects of materials application in green building by our speakers, attendees invited are expected to gain sufficient insights on what & how polymeric materials are used to enhance the properties of concrete and building materials in order to well align with the green building strategies mapped out under BCA's 3<sup>rd</sup> Green Building Masterplan launched in 2015.

### **SEMINAR DETAILS**

#### DATE

23 November 2016 (Wed)

#### SCHEDULE

1:30 pm Registration 2:00 pm Invited Talks 5:30 pm Buffet Dinner & Networking 6:30 pm End

#### VENUE

**T11B/LT5, Singapore Polytechnic** 500 Dover Road S(139651)

#### **REGISTRATION FEE**

ACI-SC Member – Free PRIS Member - Free Non-member - S\$50 nett

#### NOTES

- Please register before 19 November.
- Registration is confirmed upon receipt of reply email (members) or payment by Cheque or cash (nonmembers).
- No walk-in registration.

# **Invited Speakers**



**Dr. XU Jianwei** Principal Scientist of A\*STAR



**Dr. Tao Nengfu** Senior Lecturer of Singapore Polytechnic



**Dr. Wong Sook Fun** Programme Manager of Temasek Polytechnic

Contact person: Jane KOH TEL: (65) 9845 7293 E-mail: admin@pris.org.sg

Payment

Please make your crossed cheque payable to **"THE PLASTICS AND RUBBER INSTITUTE OF SINGAPORE"** and mail to:

The Plastics And Rubber Institute Of Singapore Tanglin Post Office Box 354 Singapore 912412

Withdrawal & Cancellation

There will be no refund for withdrawal but replacements are allowed.

The organizer reserves the right to substitute an equally-qualified speaker, change the venue, cancel or reschedule the talk should unforeseen circumstances warrant it.

#### Topic: Recent advances of electrochromic materials for smart windows applications

Abstract: Major commercial interest of Electrochromic Materials for building industry is smart windows for significant energy usage reduction and cost saving. This presentation aims to give a broad overview of the field of Electrochromic Materials and its progress towards commercialization.

**Dr XU Jianwei** is Principal Scientist and Research Councilor of Strategic Research Office at Institute of Material Research & Engineering of the A\*STAR. He is also Adjunct Research Associate Professor at NUS, and a member of SNIC and PRIS.

His major research work is focusing on synthesis and development of various functional polymer materials, molecular materials and hybrid materials for different value-added applications including electrochromics and themoelectrics. He has published more than 100 papers, 6 book chapters and filed more than 20 patents.

#### **Topic: Recent Development and Application of Polymer Concrete in Singapore**

Abstract: This talk is about how polymer concrete composites (including polymer modified cement mortar, epoxy or Polyurethane floor screed & injection materials, and fiber-reinforced plastics) are used in Singapore's public and private projects. Innovations and new approaches are reviewed as well.

**Dr Tao Nengfu** is Senior Lecturer at Singapore Polytechnic, Board Member of ACI-SC, Member of American Concrete Institute and Member of Singapore Steel Structural Society.

His research expertise includes Steel Design & CAD, Structural Inspection & Repairing, Building Information Modeling, Seismic Risk Analysis, Seismic Instrumentation, Earthquake Resistant Design of Building Structures, Dynamic Analysis of Complex Structures and IT in Civil & Structural Engineering.

#### **Topic: Use of Recycled Polymer Materials in Chemically Bonded Composites.**

Abstract: This talk is about how to apply recycled polymer materials (HDPE, PS) in building composites chemically bonded by magnesium oxide and monopotassium phosphate (as binders). The performance of the composites was assessed.

**Dr. Wong Sook Fun** is Programme Manager and Senior Lecturer at Temasek Polytechnic). She obtained her BE(Hons)(Civil Engineering) and MEngSci (Materials Engineering) from Monash University, Australia, and her PhD (Civil Engineering) from NUS. She is President of ACI (Singapore Chapter) from 2007 to 2009.

She was awarded with Scott and Furphy Engineers Pty Ltd Prize in Australia, SsangYong Young Concrete Researcher Award in Singapore, Monash Research Scholarship in Australia and NUS Research Scholarship in Singapore.

#### Center tour at the Materials Performance Center (MPC) at School of Chemical and Life Sciences of Singapore Polytechnic

Abstract: This tour is specially provided for professionals from building industry to understand on facilities for polymeric composites fabricating and testing which could be particularly useful for building material innovation.

Dr Ng Ting Ting is Senior Lecturer at Singapore Polytechnic in charge of MPC, Member of PRIS.

#### **REGISTRATION FORM**

YES, I acknowledge attending the Joint Seminar on 23 November 2016 (Wed).

Name	
Designation	
Organization	
Email	
Contact	
Membership	<ul> <li>ACI-SC existing member</li> <li>PRIS existing member</li> <li>Non-member</li> <li>I would like to join NOW as member of ACI-SC</li> <li>I would like to join NOW as member of PRIS</li> </ul>