CoolestSG is organizing a webinar for its industry members and supporting government agencies on the 29th of April on Phase Change Materials (PCM) as Thermal Energy Storage (TES) and Cool Coatings. Dr Zhu Qiang from A*Star Institute of Materials Research and Engineering will present Applications of Phase Change Materials as Thermal Energy Storage. Dr Zhang Yu from A*Star Institute of Materials Research and Engineering will talk about applications of Cool Coatings. Applications include Commercial and Residential Cooling as well as Industrial Cooling. The event will also include an introduction to A*Star Institute of Materials Research and Engineering (IMRE) research facilities and is aimed at gaining further understanding of PCM and Cool Coatings and to explore potential further research projects with the industry in these areas.

### Agenda

- 1330-1335 Welcome Note and Introduction of Program and Participants (CoolestSG)
- 1335-1355 Applications of Phase Change Materials as Thermal Energy Storage (Dr Zhu Qiang)
- 1355-1405 Questions and Answers
- 1405-1420 Applications of Cool Pigments in Paints and Coatings (Dr Zhang Yu)
- 1420-1430 Questions and Answers
- 1430-1445 Break
- 1445-1515 Introduction to IMRE Research Facilities
- 1515-1545 Round Table Discussion on Potential Collaborations on Research Projects
- 1545 End of Event

### Speakers

Dr Zhu Qiang obtained his Ph.D degree from Department of Chemistry in NUS, 2010. Then he joined Albany Molecular Research Inc (AMRI, USA MNC) as a senior research scientist. In the 5 years at AMRI, he has accumulated extensive external industry working experience, and worked with many pharmaceutical companies such as Pfizer, Merck, Novartis and AMRI etc. Since joining IMRE in 2014, his research focus has been on phase change materials, functional polymers and polymer nano-composites for the applications in Green Building, Logistics and Thermal Management sectors. He has collaborated with more than 20 industry partners. He led a series of industry projects in these fields and obtained satisfactory results with reputable MNCs, local large enterprises, local SMEs and many others. He came up with numerous novel solutions/materials and generated many patents/IDs. Currently, he is discussing with several companies for PCM technology commercialization in different areas. He also served Co-PL in A*STAR Thermoelectric Program and participated in the managerial role in IMRE as well. Currently he is also the Deputy Head of Advanced Sustainable Materials Department.

Dr ZHANG Yu received her PhD degree in Materials Science from National University of Singapore (NUS) in 2011 by studying mesoporous titania and its functional behaviors. She was a research fellow at NUS between 2007 and 2015 studying silica, titania and their polymer hybrid materials for solar cell and biomedical applications. She joined Dr LI Xu’s group as a research scientist at Institute of Materials Research and Engineering (IMRE), A*STAR in 2015. Her current research interests include design, synthesis and structure–property study of hybrid smart materials derived from silica, titania and polymer for sustainable coating and packaging applications.