

SPEAKERS' CONTACT & PRESENTATION DETAIL FORM

Composite Technology Seminar & Expert Forum

Republic Polytechnic / GMI Aero / Melchers, 10 February 2020

Full Name / Title (e.g. Mr, Miss, Mrs, Ms, Dr, Prof)	Dr. S.E. Valavan	
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TITLE OF PRESENTATION (15 words or less)

Functional Applications of Advanced Composites

PRESENTATION ABSTRACT (200 words or less)

Polymer nanocomposites have attracted considerable attention from both fundamental research and application points of view, because it exhibited much better mechanical, thermal, and multifunctional properties in comparison with the polymer matrices and their conventional microcomposite and macrocomposite counterparts. This is related to the specific properties of the nanoparticles incorporated into the polymer matrix, such as small size effect and high surface activity and energy. In this talk, the fabrication and analysis of polymer nanocomposite materials using hot melt mixing and injection moulding techniques, with improved functional properties suitable for integration into electronic components and devices will be presented.

SPEAKER BRIEF BIOGRAPHY (120 words or less)

Dr Valavan's research focuses on fabrication and analyses of advanced functional materials for emerging applications. Dr Valavan graduated from the Indian Institute of Science (IISc, Bangalore, India) and did his PhD dissertation on Electro-ceramic Materials. Dr Valavan joined RP in April 2006 as Senior Conexus Manager, in the same year he initiated and set-up RP's one of the first Technology Centre, New Materials Technology Centre (NMTC) and he continued to lead the centre for more than 10 years. Along with the NMTC team, he is instrumental in equipping the Centre with many state-of-the-art equipment to process and analyse new materials. Now the Centre is fully equipped to provide service and solutions to various manufacturing industries, A*-Research Institutes and IHLs.

Dr Valavan has helped RP to secure more than 25 research and consultancy projects in collaboration with SMEs, MNCs and IHLs and secured external grants of more than S\$5Million S\$. Dr Valavan was appointed, as RP's the first Principal Lecturer (Industry) in 2012 and later in the year 2018, he was appointed as Assistant Director (Capability and Industry).