Placement / Secondment: British Standards Institute (BSI)

Placement Area: Through-life Engineering Services for digitally enabled design & engineering

Project Title: Evaluating strategies and pathways for standardising Through-life Engineering Services practices

The Project:
Through-life engineering (TES) services introduces a new service centric approach which focuses on value co-creation and gives the whole life perspective with emphasis on concept to disposal model for the high value complex assets. The main reason behind adopting TES is to improve productivity and efficiency so that high value assets can achieve high usage rate. In order to introduce a standard for Through-life engineering services in asset management as first step towards it, BSI published a publicly available specification PAS 280 with the sponsorship from Innovate UK in 2018.

This placement identified the most suitable pathway to proceed with achieving standards development in TES including contents, approach and strategy this should take.

This was achieved through the following activities:

1. Initial mapping of the PAS280 against ISO55001 and identification of the gaps in specification.
2. Validation of the gaps in specification with industrial experts and BSI with regards to the gaps previously identified (discussions and expert interviews)
3. Capturing various options available to progress PAS280 into the next steps of standards development (process mapping, identification of research areas and capturing multiple progression pathways)

As indicated above the focus was to understand the standards development in TES and related areas. Through this placement an initial interaction with the BSI and wider stakeholders has been made possible with indication of the current challenges and future pathways being made available to the research team to enable progression of the PAS 280.

Researcher Profile:
Dr Addepalli is a Lecturer in Degradation Assessment at Cranfield University currently based within the Centre for Digital Engineering and Manufacturing. His research interests include passive and active thermography and material / component damage characterisation, digital service engineering and AR for maintenance with specific expertise in thermal material property evaluation and composite materials. He currently sits within the Through-life Engineering Service (TES) Council under the TES Standards committee with a secondment with the BSI looking into the future pathways to exploit the standards specifications PAS280.

Dr Addepalli holds a PhD from the University of Wales Trinity St David, UK – awarded as part of the Prince of Wales Innovation Scholarships (PoWIS) by University of Wales – Global Academy, an MPhil in Materials Technology from Swansea University, UK and a BEng in Mechanical Engineering from Anna University, India. Before joining Cranfield, he was with TWI (The Welding Institute) developing Pulsed Thermography techniques for industrial applications, also part of the PoWIS Scholarships. He is a Chartered Engineer (CEng), a member of the Institution of Mechanical Engineers (MIMechE), a member of the Institute of Engineering Technology (MIET) and an Associate Fellow of the Higher Education Academy (AFHEA).