AINSE Gold Medal 2009
Dr. Sharath Sriram RMIT University

Citation

Dr. Sharath Sriram was awarded his Ph.D. in March 2009, with a submission in 2.5 years from commencement. His research focussed on the synthesis and characterisation of high performance piezoelectric thin films. His other research activities during this period included the study of silicide thin films, ohmic contacts, and optical coatings. His research benefitted largely from AINSE support, providing him with access to specialised equipment and expertise.

In combination with ANSTO researchers, Dr. Sriram developed two new techniques for quantitative characterisation of piezoelectric thin films. These are the first quantitative techniques for characterisation of piezoelectric thin film, providing the research community with simplified techniques.

He has utilised the thin films developed for studies into piezoelectric energy harvesting with successful preliminary results. These high performance piezoelectric films will be applied to energy harvesting technologies to power micro and implantable devices.

Additional collaborative work he carried out during his doctoral program dealt with synthesis of highly stoichiometric, low resistance silicide thin films. These films are integral to current generation microelectronic devices, and have been utilised in developing the most accurate technique to date for characterising the resistance posed by metal-silicide and silicide-doped silicon interfaces.

He produced a total of 12 high quality journal articles acknowledging AINSE funding, in addition to numerous presentations (oral and poster) at reputed international conferences.