
RESEARCH FELLOW POSITIONS AVAILABLE,
Institute of High Performance Computing (IHPC), Singapore

The Materials Science and Engineering (MSE) department of the Institute of High Performance Computing (IHPC) together with Physics Department of National University of Singapore, invite applications for the position of Research Fellow (3 positions available). Successful applicants will conduct research on a five-year project titled “Hybrid Thermoelectric (TE) Materials for Ambient Applications”. In this project, polymer-based novel TE materials possessing excellent figure of merit, ZT and long-term thermal stability will be developed, and used in a wide range of low power consumption applications, such as electronic devices and microprocessor cooling. Main objectives of the current project are to theoretically predict and understand the properties of TE materials based on designed structures, and provide suggestions to our experimental partners who will design new polymer-based TE materials with high ZT. In addition, we will validate the experimental results and uncover the TE material working mechanism behind the experimental observation and propose promising, efficient and reliable approaches for synthesis and characterization.

Candidates should possess a PhD degree in Materials Science, Physics, Solid Mechanics or a closely related discipline. Applicants must be skilled or familiar with at least one of following techniques: first principle calculations, molecular dynamics, non-equilibrium Green’s function and Boltzmann transport equation methods. Preference will be given to applicants with computer programming experience with C/C++ or Fortran. Initial appointments are for two-year terms, which can thereafter be extended to another three-year contract. The remuneration, relocation, and travel budgets are competitive. International candidates are encouraged to apply.

Evaluation of applications will commence immediately, and will continue until all positions are filled. The employment will start from 1st January 2016. Applicants should submit his/her curriculum vitae including education records, working experience, list of publications with three references to (with Job Reference: Pharos TE) Dr. YANG Shuo-Wang (yangsw@ihpc.a-star.edu.sg), or Prof. Wang Jian-Sheng (phywjs@nus.edu.sg). We expect applicants to provide a brief statement of research interests and electronic copies of up to five relevant publications.