Job Title       Research Engineer

Project title
“Intelligent Power Management System for Electric Propulsion based Marine Vessels for improving
Reliability, Operational cost, Performance and Efficiency under different operating conditions”
(Funded by: Singapore Maritime Institute under ‘SMI Maritime Energy Systems R&D Programme’ and
Singapore Technologies Marine Ltd)

Job Description
To conduct research on electric propulsion structures for marine vessels with design, development and
analysis of integrated on board power management for optimal operation at system level under various
duty cycles.

Requirements
We seek motivated post-graduate candidates who are able to show a proven excellent record in research, and
are ready to thrive in a dynamic, multicultural and multidisciplinary team. The successful candidate should
demonstrate a track record of delivering component designs in the field of power systems and power-electronic
control. The candidate is also expected to be self-motivated, able to assist other research engineers or graduate
students, and able to implement research ideas.
In particular, we seek a person with the following skills:
- Masters in Electrical Engineering with specialization in power-electronic control of power system
  components and transmission/distribution analysis, preferably for Electric Propulsion systems
- Experience in the relevant topic area including modelling, simulation and analysis of power systems with
  power converters and energy storage using commercial soft tools such as MATLAB/Plecs/PSim
- Practical experience in design, fabrication, control and testing of power electronic converters using
  DSP/dSPACE/Microcontroller/FPGA and Altium PCB Designer
- Understanding of optimization algorithms and Good mathematical ability
- Fluent verbal and written communication skills in English
- Strong analytical and conceptual abilities

Remuneration & Benefits
Gross monthly salary will be commensurate with qualifications and experience. Leave and medical benefits will
be provided.

Term of Appointment
The appointment can commence immediately and will be initially for one year with the possibility for extension
of an additional one year.

Contact Person
Interested candidates may send their detailed curriculum vitae with a covering letter explaining their current
interests and background relevant to this project and NUS Personal Data Consent for Job Applicants to A/Prof.
Sanjib Kumar Panda (eleskp@nus.edu.sg).

Application Deadline: Open till the position is filled.