Be inspired by our mission.

Software Engineer
You will be part of a team involved in the research, design and development of advanced electronics systems for field applications. Your focus will be on the development of critical system control, data analysis and interface software. You will also participate in technical requirement analysis, algorithm development, software design and implementation, as well as system integration and verification.

Requirements:
> Bachelor's Degree in Computer / Electrical / Electronics Engineering, Computer Science or equivalent
> Experience in handling EMC and RF equipment
> Knowledge on various EMC modelling techniques and development, software design and implementation, as well as system integration and verification.

Electronics Engineer
You will be responsible for microwave systems testing, modelling of the system design using simulation software and testing the prototype. You will also participate in drafting test procedures, conduct laboratory and field trials, and perform post-trial analysis.

Requirements:
> Bachelor's Degree in Electrical / Electronics Engineering
> Knowledge of Mathcad and Autocad software is preferred
> Experience in frequency domain simulation software such as Magic, FDTD and Feko is an advantage
> Interested in laboratory work

Communications Engineer
You will be working in the field of communications technologies R&D. Your role will include the design, analysis and simulation of advanced communications systems and technologies. In addition, you will be liaising and working with vendors and collaborators.

Requirements:
> Masters / Bachelor's Degree in Electrical / Electronics / Communications Engineering
> Deep understanding of digital communications theories and concepts
> Strong background in wireless and mobile communications and signal processing technologies
> Proficiency in MATLAB and C++

Communications Research Engineer
You will be part of a team that conducts research into the development of applications for wireless communications systems and validates the developed algorithms.

Requirements:
> Masters / Bachelor's Degree in Electrical / Electronics / Communications Engineering
> In-depth understanding of existing wireless communications protocols and experience in performing customisation / modification of protocol stacks for end applications
> Knowledge of OS for wireless devices will be an advantage
> Proficiency in C / C++ programming is preferred

Electromagnetics Compatibility Engineer
You will be part of a team that conducts platform / system level EMC design, EMI analysis, simulation and testing. You will also provide technical EMC support to system acquisitions and in-house development projects. Your role will include researching new techniques in EMC modelling and design, as well as developing EMI test processes for equipment and platforms.

Requirements:
> Masters / Bachelor's Degree in Electrical / Electronics / Telecommunication Engineering
> Knowledge on various EMC modelling techniques and software simulation work is preferred
> Experience in handling EMC and RF equipment

Electro-Optics Engineer
You will be part of a team that develops advanced concepts in the Electro-Optics domain, from research work to actual testing and implementation on operational system. You will also work in both lab and field environments, as well as have the opportunities to interact and work with overseas partners.

Requirements:
> Bachelor's Degree in Electrical / Electronics Engineering
> Experience in digital electronics design will be an advantage
> Strong in fundamentals of digital design implementation, e.g. state-machine, 2's complement arithmetic, data manipulation, fast memory access and timing control
> Proficient in FPGA design with VHDL and schematic, using Xilinx FPGA development platform including timing simulation and troubleshooting of the design

Electronic Systems Engineer
You will analyse and translate high level system requirements into detailed specifications of lower level building blocks in hierarchical level. You will also design and implement some of the building blocks in real-time digital systems.

Requirements:
> Bachelor's Degree in Electrical / Electronics Engineering
> Experience in digital electronics design will be an advantage
> Strong fundamentals of digital design implementation, e.g. state-machine, 2's complement arithmetic, data manipulation and timing control
> Proficient in FPGA design with VHDL and schematic, using Xilinx FPGA development platform including timing simulation and troubleshooting of the design

Firmware Security Engineer
You will conduct research in computer and network security technologies that will provide cost-effective and user-friendly high assurance system security solutions. You will also conduct research into relevant prototype techniques to enhance information assurance in computers and networks.

Requirements:
> Masters / Bachelor's Degree in Computer / Electrical / Electronics Engineering, Computer Science
> Candidates with strong technical background and skills in other disciplines are also welcomed
> Knowledge in systems internals of non-Windows OS, Windows OS and research experience will be an advantage
> Experience in firmware design and prototyping is preferred
> Passion for computer and network security research
Information Security Hardware Engineer
You will join a team of researchers to analyse, design and build hardware and software solutions in support of cryptology research. Your work includes ASIC, embedded systems and reconfigurable hardware analysis, design and implementation, algorithm design and optimization on both hardware and software platforms.
Requirements:
> Bachelor's Degree in Computer / Electrical / Electronics Engineering, Computer Science or Science
> Knowledge of communication engineering, FPGA design, linear algebra and scientific programming is preferred
> Experience in firmware / ASIC / FPGA / embedded systems design
> Passion for research, pushing hardware performance envelope and hands-on hardware experimentation

Radar Signal Processing Engineer
You will be part of a team that conducts research and development of algorithms to solve challenging radar signal processing problems. Your role consists of problem formulation, derivation of possible solutions, verification and implementation of these solutions. You may also participate in planning and execution of field trials and data collection.
Requirements:
> Masters / Bachelor's Degree in Electrical / Electronics Engineering
> Knowledge of related fields such as digital communication signal processing and microwave / RF engineering will be an advantage
> Proficiency in Digital Signal Processing

RF Engineer
You will be responsible for the applied research and development of radio frequency (RF) / microwave technologies that involve a spectrum of design, assembly, implementation, testing and characterization of module-level or component-level hardware.
Requirements:
> Masters / Bachelor's Degree in Electrical / Electronics Engineering
> Knowledge in software such as ADS, Genesys, 3D Electromagnetic simulators and Labview will be an advantage
> Experience working in RF / microwave module and / or component research is preferred
> Passion for development work

Signal Processing Engineer
As part of the team researching into the area of audio signal processing, you will develop novel and state-of-the-art algorithms to improve signal quality, noise reduction, estimation and modelling.
Requirements:
> Masters / Bachelor's Degree in Electrical / Electronics Engineering
> Strong background in signal processing
> Knowledge and experience in acoustics will be an advantage
> Proficiency in Matlab, C / C++ is preferred
> Strong programming skills

Aerodynamics Engineer
You will be part of a team that conducts innovative research and development related to advanced concepts of aerodynamics. You are required to understand their impacts and apply them to potential aircraft applications.
Requirements:
> Masters / Bachelor's Degree in Aeronautical / Mechanical Engineering
> Knowledge in using aerodynamics software
> Possess the aptitude for critical analysis of data

Analytical Chemist
You will be involved in the development of analytical methodologies on extraction of metabolites from biological fluids, target analytes from environmental matrices and establishing novel degradation products of target analytes. You will be working extensively with gas chromatographic and liquid chromatographic systems with mass spectrometers.
Requirements:
> Masters / Bachelor's Degree in Chemistry / Chemical Engineering
> Keen interest in research work
> Knowledge in gas chromatography, liquid chromatography, mass spectrometry, fourier-transformed infrared and nuclear magnetic resonance.

At DSO, we are proud of our wide and diverse spectrum of R&D work. If you have the passion for R&D, and want to make a difference to the defence of Singapore, we want to hear from you. With research opportunities ranging from underwater to space, microbes to photons, and information to intelligence, DSO offers an adventure that no other career comes close.

For more openings, please visit our website at www.dso.org.sg