



Job Title	Research Assistant (Modelling and Optimal Control Design of Underwater Glider)
Duration	6 Months (Extendable to 9 months on Performance)
Number of Position	1
School	School of Electrical Engineering and Computer Science (SECS)
Job Description	
<p>There is a huge technological gap in the domain of underwater vehicles (UUVs) in our country. Off-the-shelf UUVs are usually expensive and difficult to import. In order to achieve self-reliance, an UUV can be designed and developed indigenously which can be used for marine applications.</p> <p>An underwater glider is a type of UUV that uses a little energy to propel; underwater. Lower the energy consumed, higher will be its endurance. One of the methods is to use variable buoyancy and hydrofoils for propulsion. In addition, the control system also needs to be efficient. Hence, there is a need to design an optimal control system for efficient propulsion of underwater gliders. In this regard, different optimal control techniques can be explored and utilized.</p>	
Requirements	
Experience	Nil
Qualifications	Bachelors in electrical engineering, electrical power engineering, electronics engineering or relevant field from HEC recognized institution.
Skills	<ul style="list-style-type: none"> ● Strong conceptual knowledge of mathematical Modelling of dynamical system; and optimal control system techniques. ● Background of key concept on how underwater glider works. ● Have excellent MATLAB/Simulink (code generation) skills. ● Be able to demonstrate his/her proficiency with previous projects/experience/online contribution etc. ● Excellent Mathematical Thinking, Computational Thinking, Creative Thinking, Design Thinking and Ethical Thinking Skills ● Conduct literature reviews ● Collect and analyze data ● Comfortable leading discussions in a cross-disciplinary groups to identify issues and resolution. ● Prepare progress reports for the PI and funding agency ● Prepare other articles, reports, and presentations ● Working proficiency and communication skills in verbal and written English.
Application Procedure	
Please email your resume to jawad.arif@seecs.edu.pk only if you fulfil the criteria mentioned above with the job title “ Research Assistant – Modelling and Optimal Control Design of Underwater Glider ” in the subject field by 30th March 2023	