

Project Title:	Development of electrochemical sensor for organic pollutant monitoring
Synopsis:	Water is an essential and general need of life with an undeniable effect directly or indirectly. All industrial, environmental, and metabolic processes are water dependent. Water, however, is said to be polluted when some of the water quality parameters have been hampered by unguided and irregularities from several anthropogenic activities, thus rendering the water unfit for the intended use. Improper use of pesticides is one of the causes of water pollution. Even though the use of pesticides helps to improve crop productivity and yields, it is imperative to note when pesticides are used indiscriminately, they come with negative consequences. This can occur when pesticides are used on land areas that are used to grow crops and are flushed away by wind and rainfall into water. As a result, they alter the state of such water bodies by changing to its physical, chemical or biological conditions, thereby making it toxic, contaminated and unsuitable for use. Taking into account the damaging impact of insecticides on fish, fabrication of reliable, rapid, and inexpensive analytical tools to detect such small amounts of pollutant chemicals in the environment is crucial.
Objectives:	<ol style="list-style-type: none"> 1. To fabricate electrochemical sensor using screen printed electrode and nanomaterials 2. To investigate the sensitivity of the fabricated sensor toward organic pollutant.
Equipment required:	Potentiostat machine, Stirrer machine, Oven
Software required:	None
Supervisor (Department):	Dr Suriani Ibrahim
Program:	Master of Mechanical Engineering
Duration:	Maximum 2 consecutive semesters