**KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION**
(Deemed to be University)
Anand Nagar, Krishnankoil – 626126, Tamil Nadu, India

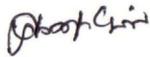**Research Proposal for Admission to Ph.D. Programme
January 2021 Session**

Name of the Candidate: **KANAGAVEL  M**

Area of Research: **Image Processing**

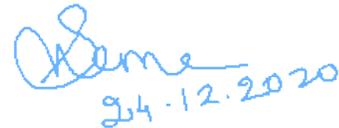Tentative Title: **Enhancement and Analysis of Underwater Images**

**Abstract**

In air medium the scattering of visible light is stronger than absorption when compared to water medium where in absorption is stronger than scattering. Even though the air medium may contain fog, smoke, dust, water vapour etc as impurities during normal day time, the absorption of visible light is always less and hence the captured image contains three colour channels in RGB. On the other hand due to the presence of dissolved salts and minerals, sand particles, degraded plant and animal materials, micro organisms such as pathogens in water and decrease in intensity of visible light when depth increases, the absorption will become very stronger which leads to disappearance of colours of visible light in water and hence the captured image is usually blue or green with the low intensity or absence of Red Channel in the RGB environment and also the captured image is worst in the case of marine environment. In this work we will propose a new method to map the colour channels of the captured images of objects in different environment with the captured images of the same objects in the marine environment for enhancement of underwater images.

Signature of the Candidate
Dated: The 24th December, 2020

9,4.12.2020

Signature of the Supervisor
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