The National Institute of Engineering

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A Seminar Report On

"Underwater Image Enhancement"

Submitted By

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(4NI16IS055)

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<u>Certificate</u>

Certifies that the seminar work titled "**Underwater Image Enhancement**" is a work carried out by **NANDINI MUNDRA** bearing **4NI16IS055** in partial fulfilment for the requirements of the sixth semester BE in Information Science & Engineering prescribed by The National Institute of Engineering, Autonomous Institution under Vishvesvaraya Technological University, Belagavi, It is certified that all correction / suggestions indicated for Internal Assessment have been incorporated. The Seminar report has been approved as it satisfies the academic requirements in respect of the seminar work prescribed for the sixth semester.

Signature of Guide   Signature of HOD

 Mrs Nandini B. M   (**Dr. K. Raghuveer**)

<u>ABSTRACT</u>

Underwater images suffer poor visibility mainly due to scattering and absorption effects. There have been several approaches to restore and enhance the visibility of degraded underwater images. Single image approach without the need of specialized hardware and knowledge about underwater conditions or scene structure is a novel approach for underwater image enhancement.

Color compensated and white balanced version of original image as inputs as well as their associated weight maps undergoes a multi-scale fusion strategy. Thus enhanced images are characterized by better exposedness of the dark regions, improved global contrast, and edges sharpness.

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