

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

**"Jnana Sangama" Belagavi – 590018**



**PROJECT REPORT ON**

**"URBAN FLOOD MANAGEMENT AT KOTTARACHOWKI,  
MANGALORE USING GIS AND REMOTE SENSING"**

**Submitted in partial fulfilment of the requirements for the award of degree**

**BACHELOR OF ENGINEERING  
IN  
CIVIL ENGINEERING**

**Submitted By**

<b>Name</b>	<b>USN</b>
<b>MALLIKARJUNA</b>	<b>4AL14CV046</b>
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<b>HANAMANTH Y M</b>	<b>4AL15CV034</b>
<b>MAHAMMAD RASOOL AWATI</b>	<b>4AL15CV049</b>

**Under the Guidance of  
Mrs. VEENA D SAVANTH  
ASSISTANT PROFESSOR  
DEPARTMENT OF CIVIL ENGINEERING**



**ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY  
SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI – 574 225.**

**CE  
2019  
ET657**

**2018-19**



# ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(A Unit of Alva's Education Foundation®, Moodbidri)

"Shobhavana", Mijar, Moodbidri - 574 225, D.K.

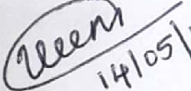
DEPARTMENT OF CIVIL ENGINEERING

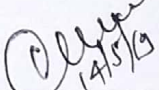
## Certificate

This is to certify that following students

Name	USN
MALLIKARJUNA	4AL14CV046
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Has submitted Final report on "URBAN FLOOD MANAGEMENT AT KOTTARACHOWKI, MANGALORE USING GIS AND REMOTE SENSING" for VIII Semester Bachelor of Engineering in Civil Engineering during the academic year 2018-19. The final report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

  
14/05/19  
Prof. Veena D Savanth  
Project Guide

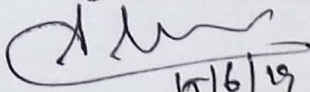
  
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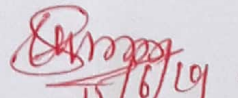
  
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Name of the Examiners

1. Am Kurav es
2. SUNDAR HANDEKAR

Signature with Date

  
15/6/19

  
15/6/19

## ABSTRACT

Flood impact is one of the most significant disasters in the world. Causes of floods are due to natural factors such as heavy rainfall, high floods and high tides, etc., and human factors such as blocking of channels or aggravation of drainage channels, improper land use, deforestation in headwater regions, etc. Floods result in losses of life and damage properties. Population increase results in more urbanization, more impervious area and less infiltration and greater flood peak and runoff. Problems become more critical due to more severe and frequent flooding likely caused by climate change, socio-economic damage, population affected and public outcry. Flood loss prevention and mitigation includes structural flood control measures such as construction of levees and proper maintenance of the existing drainage system and non-structural measures such as flood forecasting and warning, flood hazard and risk management and public participation etc. This study uses the Remote Sensing and GIS technique to assess the flood inundated places by flood hazard map in the study area, effect of flood on people, infrastructure and vegetation by flood vulnerability map and flood zones which shows hazards and classifying them as low, medium and high hazards by flood zoning map in the study area. The results of the above particulars are used to give early warnings of the flood and suggestion to flood control and mitigation measures for the flood prone study area that is Kottarachowki, Mangalore (T), Dakshina Kannada (D), Karnataka state, India.