

**ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY**

**Shobhavana Campus, Mijar, Moodbidri -  
574225, Mangalore, D.K.**



# **DBMS LAB MANUAL**

**(As Prescribed By VTU For CBCS Scheme - 17CSL58)**

**FOR 5<sup>TH</sup> SEM CSE COURSE**

**Ms. Reena Lobo  
Assistant Professor  
Dept. of CS&E**

*Prepared by,*

**Mrs. Harshitha G M  
Assistant Professor  
Dept. of CS&E**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**AIET - MIJAR**

**2019 - 2020**



# ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

A Unit of Alva's Education Foundation (R)

( Affiliated to Visvesvaraya Technological University, Belagavi  
Approved by AICTE, New Delhi & Recognised by Government of Karnataka )  
Shobhavana Campus, Mijar, Moodbidri - 574 225, Mangalore, D.K., Karnataka State.  
Phone : 08258-262724 (O), 262725 (P), Telefax:08258-262726  
Email : principalaiet08@gmail.com, Web:www.aiet.org.in

Date: 20/06/2018

## Department of Computer Science & Engineering

### Vision Statement:

"Engendering competent, excellent professionals by transforming the knowledge and computing skills to individuals through modern innovative tools and techniques"

### Mission Statements:

- M1. To produce skilled, creative software developers through rigorous training.
- M2. To conduct specific technical courses to keep abreast to the latest technological developments and transformations in the domain.
- M3. To implement the ideas of research and innovations in interdisciplinary domains.
- M4. To establish Industry-Institute Interaction programs to enhance the skills of employability and entrepreneurship.

  
Principal  
PRINCIPAL

Alva's Institute of Engg. & Technology,  
Mijar, MOODBIDRI - 574 225, D.K.

  
Chairman  
CHAIRMAN  
ALVA'S EDUCATION FOUNDATION (R)  
MOODBIDRI - 574 227 (D.K.)





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Date: 20/06/2018

## Department of Computer Science & Engineering

### Program Specific Outcomes (PSOs):

A graduate of the Computer Science and Engineering Program will exhibit:

**PSO1: Professional Skills:** The ability to understand & implement the computer programs in the areas of Computer Architecture, System Software, Database Management Systems, Web Design, Multimedia and Computer Networking.

**PSO2: Problem-Solving Skills:** The ability to solve real-world problems by suitable mathematical model with strong technological concepts in rapidly growing arena of computer technology.

**PSO3: Successful Career and Entrepreneurship:** Knowledge in diverse areas of Software Engineering and Management & Entrepreneurship for IT Industry, conducive in cultivating skills for successful career development.

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Date: 20/06/2018

## Department of Computer Science & Engineering

### Program Educational Objectives (PEOs):

The graduates of Computer Science & Engineering will able to

**PEO1:** Exhibit fundamental strength in core courses of Computer

☐ Engineering to solve the problems of computing world.

**PEO2:** Adapt and contribute towards the emerging technological changes.

**PEO3:** Employed in computing profession or engaged in learning to pursue higher studies.

  
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PRINCIPAL

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Email : principalaiet08@gmail.com, Web:www.aiet.org.in

Date: 10/04/2018

## Vision Statement of the Institute:

Transformative education by pursuing excellence in Engineering and Management through enhancing skills to meet the evolving needs of the community.

## Mission Statements of the Institute:

- M1. To bestow quality technical education to imbibe knowledge, creativity and ethos to students community.
- M2. To inculcate the best engineering practices through transformative education.
- M3. To develop a knowledgeable individual for a dynamic industrial scenario.
- M4. To inculcate research, entrepreneurial skills and human values in order to cater the needs of the society.

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PRINCIPAL

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Chairman  
CHAIRMAN

ALVA'S EDUCATION FOUNDATION (R)  
MOODBIDRI - 574 227 (D.K.)

# **Alva's Institute of Engineering & Technology**

**Shobhavana Campus, Mijar, Moodbidri, D.K-574225**

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## **Department of Electronics & Communication Engineering**

**Academic Year 2018-19**



### **Embedded Controller Lab LABORATORY: 15ECL67**

**NAME:** .....

**USN:**.....

**SEM / SECTION:**.....**BATCH NO.:**.....

**Prepared by**

**Department of Electronics & Communication Engineering**

**Alva's Institute of Engineering & Technology**

**Shobhavana Campus, Mijar, Moodbidri, D.K-574225**

**Phone: 08258-262725, Fax: 08258262726**

### **Vision of the Institute**

“Transformative education by pursuing excellence in engineering through enhancing skills to meet the evolving needs of the community”

### **Mission of the Institute**

- To bestow quality technical education to imbibe knowledge, creativity and ethos to students community.
- To include the best engineering practices through transformative education.
- To develop a knowledgeable individual for a dynamic industrial scenario.
- To include research, entrepreneurial skills and human values in order to cater the needs of the society.

### **Vision of the Department**

“Centre of Excellence to Empower the Young Minds in the field of Electronics and Communication Engineering with emphasis on Learning and Skill Development through Transformative Education catering to the needs of the Society”

### **Mission of the Department**

- To create a unique Learning Environment to enable the Students for their Excellence.
- To Empower the Students with necessary Skills for Solving the Technological Problems.
- To Promote R&D Activities among Teaching Learning group to meet the requirements of Industry and Academia.
- By Imbibing the Students with Human Values and Ethics through Transformative Education and make them Socially Responsible Professionals.

## PROGRAMME OUTCOMES

Our graduates will be able to

1.	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2.	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3.	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4.	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5.	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6.	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7.	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8.	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9.	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10.	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11.	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12.	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



### **Program Specific Outcomes (PSO's)**

- PSO 1: Understand and apply the principles of Science and Engineering in the field of Electronics and Communication.
- PSO 2: Ability to design and implement systems using the concepts of Analog & Digital Electronics, Communication & Networking, Signal Processing, Embedded Systems & Semiconductor technology to solve complex problems.
- PSO 3: Develop proficiency to use modern Hardware & Software tools in the area of Electronics and Communication Engineering.

### **Programme Educational Objectives (PEO's)**

- PEO1: To Prepare Graduates with solid foundation in Mathematical, Scientific and Engineering fundamentals required to develop problem solving ability.
- PEO2: To provide adequate exposure to emerging technologies among the Graduates to pursue Higher Studies and Research.
- PEO3: Equip Engineering Graduates with Technical and Professional Skills to groom them to be Competent and Employable.
- PEO4: To inculcate professional and ethical attributes among graduates who will contribute to society as responsible professionals or successful entrepreneurs and become worthy global citizens.

### **Course Outcomes**

Students will be able to:

CO1:	Analyze the architecture and instruction set of 32 bit microcontroller ARM Cortex M3
CO2:	Understand the software tool required for programming in Assembly and C language
CO3:	Develop assembly language programs using ARM Cortex M3 for different applications
CO4:	Design C language programs and library functions for embedded system applications
CO5:	Illustrate the concept of Embedded Hardware peripherals
CO6:	Interface external devices and I/O with ARM Cortex M3



# **GEOTECHNICAL ENGINEERING**

## **LABORATORY MANUAL**

### **(15CVL57)**

**(FOR INTERNAL USE ONLY)**

**Name** : Nitesh Pujari

**Class** : V Semester B.E

**USN** : LAL15CV064

**Roll No** : 03

**Batch** : B-I

**DEPARTMENT OF CIVIL ENGINEERING**

**ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY**

**SHOBHAVANA CAMPUS, MIJAR, MOODABIDRI, D. K – 574225**



### VISION OF THE DEPARTMENT

To become a leader in the field of civil engg. by including quality education in developing highly competent manpower/promote research to meet the current & future challenge in civil engg.

### MISSION OF THE DEPARTMENT

To impart the knowledge by creating conducive teaching learning environment.

To produce civil engg. of high caliber, technical skills & ethical values to serve the society

To promote innovation in the minds of future engineers to face the challenge.

### COURSE OUTCOMES

CO1	Study of physical and index properties of the soil.
CO2	Study of classification based on index properties & field identification
CO3	To determine OMC and MDD, plan and assess field compaction program.
CO4	Study of shear strength and consolidation parameters to assess strength and deformation characteristics.
CO5	Study of in-situ shear strength characteristics.



## PROGRAM OUTCOMES (POs)

PO1	<b>Engineering knowledge:</b> Apply the knowledge of mathematics, science, Engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
PO2	<b>Problem analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
PO3	<b>Design/development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal and environmental considerations.
PO4	<b>Conduct investigations of complex problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6	<b>The engineer and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	<b>Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	<b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

## PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1	The graduates will have the ability to plan, analyse design execute and maintain cost effective structures.
PSO2	The graduates will have the ability to take up employment entrepreneurship, research and development for sustainable society.
PSO3	The graduates will be able to pursue opportunities for personal & professional growth, higher studies in lifelong learning.
PSO4	The graduates will be able to demonstrate professional integrity & application of ethical environmental, regulatory.

## PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1	To provide the students a strong foundation in fundamentals that will enable them to identify and solve real time problems.
PEO2	To develop abilities & talents, leading to creativity & productivity in professional & industrial field.
PEO3	To explore & apply the modern engg tools for planning, design and execution & maintenance of works that are technically & economically viable.
PEO4	