

# Civil Engineering



## DEPARTMENT NEWS LETTER Volume 12, OCTOBER 2015

Civil engineering is the application of physical and scientific principles for solving the problems of society, and its history is intricately linked to advances in understanding of physics and mathematics throughout history. Because civil engineering is a wide ranging profession, including several separate specialized sub-disciplines, its history is linked to knowledge of structures, materials science, geography, geology, soils, hydrology, environment, mechanics and other fields.

The Department was established in 2010 with the inception of the college. The Department boasts of a faculty that specializes in the fields of Structure engineering, Geotechnical engineering, Water resources, Transportation engineering, Construction management, GeoInformatics and Environmental engineering. The labs are fully equipped to enhance the knowledge of the student, periodic field trips and visits to various project sites are arranged. Department offer M.Tech. in Structural Engineering and Construction Management with effect from 2014.

**VIMAL JYOTHI**  
**Engineering**  
**College**

Department of  
civil Engineering

### VISION

Shaping  
infrastructure  
development with  
societal focus

### MISSION

Achieve  
International  
Recognition by:

- Developing Professional Civil Engineers
- Offering Continuing Education

### **MESSAGE FROM THE HEAD**

*Our enrollment continues to climb despite increasingly rigorous admissions standards. As a Department, in recent years we have received more applications for an admission into Civil Engineering. As a result, the student body is a remarkable group of exceptionally bright, ambitious, and hardworking students who are hungry for a top-flight engineering education. Our students find a diverse curriculum that emphasizes both traditional and emerging areas of Civil Engineering, simultaneously developing experimental, communication, and leadership skills. A major strength of our department is a truly outstanding faculty, many in the early stages of their careers, who have become some of the brightest stars in the Civil Engineering discipline. I hope you will take a few moments to peruse this Newsletter for information on academic programs, faculty research, awards and other recognition received by our students and faculty and news.*

**Prof. Biju Mathew**

### **The Oresund Bridge**

It is a double-track railway and motorway bridge between southernmost Sweden and Denmark. The bridge runs nearly 8 kilometres (5 miles) from the Swedish coast to the artificial island of Peberholm, which lies in the middle of the strait. The crossing of the strait is completed by a 4 km (2.5-mile) underwater tunnel, called the Drogden Tunnel, from Peberholm to the Danish island of Amager. The Øresund Bridge is the longest combined road and rail bridge in Europe, and connects two major metropolitan areas: Copenhagen, the Danish capital city, and the major Swedish city of Malmö. It connects between central Europe and Sweden/Finland.



### **From the editorial board**

Greetings from Civil engineering department of VJEC and a warm welcome to the sixth edition of the Departmental newsletter. VJEC –Civil Department aims at developing students to understand the impact of the professional Civil Engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. Our calendar of events is already well underway with a few events already held such as Industrial Training , Technical fest etc.

**Anitha Babu , Namitha K, Anita S, Joshma Madhusudhnan(Staff Editor)**

## ACADEMIC DETAILS

S3 Internal was published and following students are the toppers

NAME OF STUDENT	MARKS SCORED (400)
Dhruva Prabakar	379
Jakson Steephen	372
T C Anusree	367

### REMEDIAL CLASSES

The remedial classes for Ist year students has started. The classes aim to improve the confidence and ability of students in facing the exam. The selected students from each class are attending the remedial classes from 4.45 to 10.45 p.m.

### S1 Third Series Result Analysis

Top 3 Students of the Class		
Name	Total	%
ARCHANA KRISHNAN	322	89.44%
SANTHWANA E	315	87.50%
SRILAKSHMI T K	308	85.56%

**S3 CE A**

Top 3 Students of the Class		
Name	Total	%
RAHUL T P	331.5	92.08%
CHANDENI RAJESH	313	86.94%
THEERTHA DELJIT	286.5	79.58%

**S3 CE B**

# ADVANCED TRAINING PROGRAMME ON WATER POLLUTION: CONTAMINANT QUANTIFICATION AND TREATMENT

INDIAN SOCIETY FOR TECHNICAL  
EDUCATION (ISTE)



APPROVED TRAINING PROGRAMME ON

## Water Pollution: Contaminant Quantification and Treatment

30 November – 4 December, 2015

### COURSE COORDINATORS

Dr. P. V. Nidheesh  
Sigi Thomas



Organized By

Department of Civil Engineering  
Vimal Jyothi Engineering College  
Chemperi, Kannur, Kerala, India

### Introduction

Water pollution and its problems to the environment increases day by day, due to the rapid industrialization. Water quality is an important determinant of availability because water which is not fit for use is in effect unavailable. Nowadays, various pollutants collectively known as emerging contaminants, is also a world-wide problem.

This training programme has been developed with the goal to provide an in-depth understanding of advances in water treatment, water quality analysis, emerging contaminants, determination of water contaminants etc. In this interactive short term course, participants will be provided with an idea of advances in the field of water treatment. Emphasis will be given to the volumetric analysis of water contaminants and its chemistry. The safety in an Environmental Engineering Lab is a great concern. Determination various contaminants using sophisticated equipments will be discussed in detail. A brief idea on the safety from the chemicals including acids, bases, other hazardous salts will be discussed. Application of nanotechnology/nanomaterials in water treatment will also discuss in detail.

### Course Content

Important topics covered will include

- Safety in Environmental Engineering Lab
- Chemistry of Water Analysis
- Emerging Contaminants in Water
- Electrocoagulation for Water Treatment
- Sophisticated Equipments for Contaminant Determination
- Natural Coagulants
- Removal Fluoride, Arsenic etc. from Water
- Membrane Techniques

## Resource Persons

The course lecturers will be delivered by eminent professionals from reputed organizations.

1. Dr. S. Vasudevan, Principal Scientist, CECRI, Karikudi.
2. Dr. Basavaraju Manu, Assistant Professor, NITK, Surathkal.
3. Dr. S. T. Ramesh, Associate Professor NIT, Trichy.
4. Dr. R. Gandhimathi, Assistant Professor NIT, Trichy.
5. Dr. George K. Varghese, Assistant Professor, NIT Calicut
6. Dr. Arun Kumar Thalla, Assistant Professor, NITK, Surathkal.
7. Dr. Devatha, Assistant Professor, NITK, Surathkal.
8. Dr. P. V. Nidheesh, Associate Professor, VJEC
9. Sigi Thomas, Associate Professor, VJEC
10. Shimna Paulose, Assistant Professor, VJEC

# PROGRAMM OUTCOME OF DEPARTMENT

1. An ability to apply knowledge of mathematics, science, and engineering.
2. An ability to design and conduct experiments, as well as to analyze and interpret data.
3. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health, and safety, manufacturability, and sustainability.
4. An ability to function on multidisciplinary teams.
5. An ability to identify, formulate and solve engineering problems.
6. An understanding of professional and ethical responsibility.
7. An ability to communicate effectively.
8. The broad education necessary to understand the impact of engineering solutions in global, economic, environmental and societal context.
9. Recognition of the need for, and an ability to engage in life-long learning.
10. Knowledge of contemporary issues.
11. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice