



COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai and Accredited by NBA)

Avinashi Road, Civil Aerodrome post, Coimbatore – 641 014

Department of Civil Engineering

A BRIEF REPORT

- 1 **Organized Department:** Civil Engineering
- 2 **Sponsorship:** TEQIP
- 3 **Type of course:** One Week Faculty Development Programme
- 4 **Date of course:** 20-11-2013 to 26-11-2013
- 5 **Title of FDP:** Fluid Mechanics and Applied Hydraulics
- 6 **Duration of course:** Seven days
- 7 **Total number of participants:** 42
- 8 **Chief Patron** Dr. S. R. K. Prasad
Correspondent, CIT
- 9 **President** Dr. R. Prabhakar,
Secretary, CIT
- 10 **Patron** Dr. V. Selladurai,
Principal, CIT
- 11 **Chairman and convener:** Dr.K. Divakar
Associate Professor,
Department of Civil Engineering, CIT
- 12 **Coordinators:** Ms.K.Nithyapriya
Assistant Professor,
Department of Civil Engineering, CIT

Ms.P.Bhuvana Jagadeeswari
Assistant Professor,
Department of Civil Engineering, CIT
- 13 **List of Resource Persons:** Dr.K. Divakar
Associate Professor,
Department of Civil Engineering, CIT

Dr.K.Subramanian .
Professor and Head,
Department of Civil Engineering, CIT



COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai and Accredited by NBA)

Avinashi Road, Civil Aerodrome post, Coimbatore – 641 014

Department of Civil Engineering

Ms.K.Nithyapriya
Assistant Professor,
Department of Civil Engineering, CIT

Ms.P.Bhuvana Jagadeeswari
Assistant Professor,
Department of Civil Engineering, CIT

Dr.B.V .Mudgal
Professor,
Department of Civil Engineering,
Anna University,Chennai.

Dr. T.Thamarai
Professor,
Department of Computer Technology,
MIT,Chennai.

Dr.C.Meiaraj
Assistant Professor,
Department of Civil Engineering,
GCTCimbatore.

15. Out-Come / Brief Report of the Programme:

Day: 1

Date: 20.11.2013

The inaugural function of the Faculty Development Programme (FDP) was begun with prayer song. **Dr. K Diwakar , Associate Professor of Civil Engineering, CIT welcomed the gathering and gave the presidential address.** A total number of **40** Faculties from Civil Engineering Department of various institutes all around Tamil Nadu were participated in the programme.



COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai and Accredited by NBA)

Avinashi Road, Civil Aerodrome post, Coimbatore – 641 014

Department of Civil Engineering

The morning session II of the FDP was continued by **Dr. K. SUBRAMANIAN, Head & Professor, Department of Civil Engineering, CIT** was wonderful on “**Basic Fluid Properties**”, in which gives he an overview about the “basic fluid properties like Viscosity, Cavitation, Capillarity, Vapour pressure etc..”

The afternoon session I was started with lecture delivered by **Dr.C.Meiaraj** on “**Hydrostatic forces**” was **very informative** in which he gave a brief note on the nature of hydrostatic forces with practical application.

The afternoon second session was continued by on **Dr.C.Meiaraj** on “**Fluid statics – Buoyancy**” in which basics of fluid statics and detailed description of buoyancy with its practical applications were dealt in a wonderful manner.

Day: 2

Date: 21.11.2013

The morning session of the FDP was started with a lecture delivered by **Dr. K. Divakar, Associate Professor, Department of Civil Engineering, CIT**. It was about “**Fluid Pressure and Measurements**”, in which he recalled the fluid pressures and its measurements using Manometers and Mechanical Gauges. He also gave a precise note on the modern methods available to measure the fluid pressure.

The morning session of the FDP was continued by **Dr. K. Subramanian, Professor and Head, Department of Civil Engineering, CIT** on “**Dimensional Analysis**”, in which he gave a detailed note on dimensional analysis and its application in deriving formulae based on the dependant parameters of fluid property.

In the afternoon session-I, **Miss.K.Nithyapriya**, Assistant Professor, Department of Civil Engineering, CIT conducted a tutorials on “**Basic Fluid Properties**”.

In the afternoon session-II, **Miss.P. Bhuvana Jagadeeswari**, Assistant Professor, Department of Civil Engineering, CIT conducted a tutorials on “**Dimensional Analysis**”.



COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai and Accredited by NBA)

Avinashi Road, Civil Aerodrome post, Coimbatore – 641 014

Department of Civil Engineering

Day: 3

Date: 22.11.2013

The morning session-I of the FDP was handled by **Dr. K. Subramanian, Professor & HOD, Department of Civil Engineering, CIT** on “**Model Studies**”. It was an interesting lecture briefing dimensionless numbers, types of similarities and Scale effect.

The morning session-II of the FDP was continued by **Dr. Mudgal** on “**Fluid flow concepts- Kinematics**”, in which he explained types of fluid flow, Continuity equation, Velocity potential and Stream function.

The afternoon session-I was started with lecture delivered by **Dr.T.Baskaran** on “**Fluid flow concepts- Dynamics**” was very informative in which he gave a brief note on Bernollis and Eulers equation.

In the afternoon session-II, **Miss.K.Nithyapriya**, Assistant Professor, Department of Civil Engineering, CIT conducted a tutorials on “ **Fluid flow concepts- Dynamics**”.

Day: 4

Date: 23.11.2013

Participants were taken to the field during both the sessions.

Day: 5

Date: 24.11.2013

Lab practices were demonstrated by **Miss.K.Nithyapriya**, Assistant Professor and **Miss.P. Bhuvana Jagadeeswari**, Assistant Professor, Department of Civil Engineering, CIT to the participants



COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai and Accredited by NBA)

Avinashi Road, Civil Aerodrome post, Coimbatore – 641 014

Department of Civil Engineering

Day: 6

Date: 25.11.2013

The morning session of the FDP was started with a lecture delivered by **Dr. K. Divakar, Associate Professor, Department of Civil Engineering, CIT**. It was about “**Flow through pipes**”, in which he explained the Hydraulic gradient, total energy line and energy losses in pipes in detail.

The morning session of the FDP was continued by **Dr. T. Thamarai** on “**Uniform flow in open channels**”, in which she gave a detailed note on the properties of uniform flow in open channels.

In the afternoon session-I, **Dr. T. Thamarai** gave an detailed lecture on “**Non-Uniform flow in open channels**”, and its properties.

In the afternoon session-II, **Miss.P. Bhuvana Jagadeeswari**, Assistant Professor, Department of Civil Engineering, CIT conducted a tutorials on “**Flow through pipes**”.

Day: 7

Date: 26.11.2013

The morning session of the FDP was started with a lecture delivered by **Dr. K. Subramanian, Professor and Head, Department of Civil Engineering, CIT**. It was about “**Ideal fluid flow**”, in which he recalled the ideal fluid flow properties.

The morning session of the FDP was continued **Dr. K. Divakar, Associate Professor, Department of Civil Engineering, CIT** on “**Design of Laboratory Experiments**”, in which he gave a detailed note on how to design the lab experiments.

Feedback and Valedictory were conducted in the afternoon sessions.