

12. Mode of payment: Through online transfer  
(Only for participants from Industries and R&D establishments). For others, it is free.  
Account Name: CCE IIT Madras  
Account No: 36401111110  
Amount: INR 10000  
Bank Name: SBI, IIT Madras (B.O), Chennai 600036. IFSC Code: SBIN0001055  
Mention the reference No. CCE/CEP/22/SC&SKB/OE/18-19 during all transactions.

13. Accommodation required (Yes/No):

I agree to abide by the rules and regulations governing the AICTE programme. If selected, I shall attend the programme for the entire duration. I also undertake the responsibility to inform the Coordinator in advance if I am unable to participate in the Course.

Place & date: Signature of the Applicant

#### SPONSORSHIP CERTIFICATE

This applicant is permitted to participate in the above programme if selected. Further, I have personally talked to the applicant and he/she is confident in attending the course in case admission is offered to him/her.

This is to certify that the institute is recognized by AICTE.

Date: Signature  
Sponsoring Authority  
(Head of the Institution/Department)  
SEAL

#### Registration Fee

No registration fee for the faculty members working in AICTE-approved colleges and Universities. The registration fee for the participants from Industries and R&D establishments is Rs.10,000/- per participant (To be transferred online).

#### Registration Process

Interested participants are requested to send the registration form duly signed by sponsoring authority to [vino.civil35@gmail.com](mailto:vino.civil35@gmail.com)

#### Note

1. Applications without a sponsorship certificate will not be entertained
2. Kindly note that 100% attendance is compulsory for the course.

#### Important Dates

Last date of registration	25.09.2018
Selection Intimation by Email	28.09.2018
Confirmation by participants by Email	30.09.2018

#### Venue

Seminar Hall  
Department of Ocean Engineering  
IIT Madras, Chennai-600036

#### Contact

Any query regarding the course may be directed to  
Email: [vino.civil35@gmail.com](mailto:vino.civil35@gmail.com)  
Mobile: 91-96557 86997



**AICTE SPONSORED**  
**Short term course on**

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## **ANALYSIS AND DESIGN OF STRUCTURES WITH APPLICATION TO SHIP AND OFFSHORE STRUCTURES**

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**October 8 – 13, 2018**



Organised by  
**Department of Ocean Engineering**  
**IIT Madras**

**COURSE COORDINATORS**  
**Prof. Srinivasan Chandrasekaran**  
**Prof. S.K.Bhattacharya**

## General Information

AICTE-sponsored Short Term Course on “*Analysis and design of structures with applications to ship and offshore structures*” is organized by Indian Institute of Technology Madras. The course is open to faculty members from AICTE recognized engineering colleges and practicing professionals from the industry. A few seats are also offered PG and PhD students. As only limited seats are sanctioned for course (due to reservation of computer lab) and the selection of candidates will be on merit basis.

The registration form, duly signed by the sponsoring authority, should reach us by **September 25, 2018**. Selected candidates will be informed in advance, by email.

All selected participants will be provided with free hospitality, except industrial participants. Boarding and lodging arrangements will be made in the institute Guest House, on twin sharing basis. Participants who are not availing this facility will not be entitled to any rebate. Family accommodation is not available on campus. However, personal arrangements in city hotels can be made at own expense. PG and PhD students cannot avail boarding and lodging facilities in the campus.

The selected participants are also eligible for 3-Tier AC train fare/Bus fare (State Transport Corporation only) by the shortest route with proper submission of proofs. Travel by car will also be reimbursed on production of receipt.

***Participants are advised to bring their own Laptops for MATLAB programming sessions.*** However, computational facilities will be extended free of cost for the course duration. Certificates will be provided on successful completion of the course.

## Objective of the Course

Objective of the course is to make the participants conversant with detailed analysis and design of both two dimensional and three dimensional structures and their application as ship and offshore platforms. In addition, the course also aims to discuss fundamentals of advanced structural analysis with a detailed mathematical modelling of problem formulation using MATLAB.

## Course Content

### **DAY 1**

Session1: Introduction to offshore structures

Session 2: Introduction to ships

Session 3: Matrix methods of analysis

Session 4: Introduction to MATLAB programming

### **DAY 2**

Session 1: Analysis of planar orthogonal beams

Session 2: Analysis of planar orthogonal frames

Session 3: Analysis of planar non-orthogonal frames

Session 4: Example problems

### **DAY 3**

Session 1: Analysis of truss structures

Session 2: Examples on truss analysis

Session 3: 3D analysis - Transformations

Session 4: Space frame analysis

### **DAY 4**

Session 1: Fatigue analysis of tubular joints

Session 2: Fatigue analysis of axial members

Session 3: Analysis of ship hull forms - I

Session 4: CAD analysis of offshore platforms - I

### **DAY 5**

Session 1: CAD analysis of offshore platforms - II

Session 2: Preliminary design of offshore members

Session 3: Analysis of ship hull forms – II

Session 4: Design of ship hull forms

### **DAY 6**

Summary, Exam and Certification

## REGISTRATION FORM

Short term course on

**“Analysis and design of structures with applications to ship and offshore structures”**

**October 8 – 13, 2018**

1. Name: Ms./Mr./Dr.  
(In block letters)
2. Designation:
3. Contact Address:
4. Mobile:
5. Email:
6. Academic Qualification:
7. Professional Category:  
(Industry/Academic/Research)
8. Name of the institution where employed:
9. Industrial Experience (in years):
10. Teaching Experience (in years):
11. Subjects taught related to this course:
12. Number of Short term courses attended: