

AICTE QIP SHORT TERM TRAINING PROGRAMME

On

Compiler Design

Programme Dates
18 Jan 2021 to 23 Jan 2021

Coordinators:

V. Krishna Nandivada

Sponsored by

All India Council for Technical Education



Organized by

Department of CSE
Indian Institute of Technology Madras

BACKGROUND

The proposed short-term course is designed to enhance and strengthen the basic knowledge on Compiler Design. At the end of the course, participants will have a fair understanding of some standard passes in a general purpose compiler. Participants will also have hands on experience on implementing a compiler for a subset of Java. The participants will also find a set of practical exercises that can easily be tuned to be used by their own students towards the lab component of the course.

COURSE CONTENT

Theory lectures

- 1. Introduction and Lexical Analysis
- 2. Parsing
- 3. Symbol Table and Type checking
- 4. Syntax Directed Translation
- 5. IR Generation
- 6. Register Allocation
- 7. Code Generation

Lab N-wizard tournament

- 1. Macro replacement and parsing.
- 2. Type checking.
- 3. IR Generation.
- 4. Register Allocation.
- 5. M/c code generation.

Special Invited Lectures

Invited experts will lectures on some of the latest cutting edge related topics.

COURSE MATERIAL

- Each registered participant will be provided with a set of comprehensive lecture slides.
- Each registered participant will get a set of lab exercises that can be easily tuned to be used by their own students in the lab component.
- The participants will also get a reference implementation of the complete lab assignment.

FACULTY

1. V. Krishna Nandivada-
Professor, Indian Institute of Technology
Madras.

COURSE DURATION & VENUE

The course is of one-week (six days) duration from **Jan 18 2021 to Jan 23 2021**. **Lectures will be delivered in online mode only.**

Register through the following google form

https://docs.google.com/forms/d/e/1FAIpQLSfDmZQ8KxYWUZD_I3bcH2H7J7VBPPtHWDAdxq5umtKp5pw-Sg/viewform?usp=sf_link

SPONSORSHIP

Prof./Dr./Mr./Ms./Mrs./_____ is an employee of our institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course “-----” at IIT Madras during -----, if selected.

Date: _____
Signature of Sponsoring Authority
Designation: _____
Official Seal: _____

Signature of the Applicant

ELIGIBILITY

The course is open to faculty with background in Computer Sciences and allied branches information technology from engineering colleges approved by AICTE. **No course fee** is charged for participants sponsored by AICTE approved institutions.

IMPORTANT DATES

Last date for application : **05-Jan-2021**
Intimation of selection (by email) : **07-Jan-2021**
Confirmation of participation (by email) : **11-Jan-2021**

QIP STTP details, application and updates:

Center for Continuing Education, IITM:

<http://www.cce.iitm.ac.in/>

Department of CSE, IITM:

<https://www.cse.iitm.ac.in/>

Course coordinators Profile:

Prof. V. Krishna Nandivada

<https://www.cse.iitm.ac.in/~krishna/>