MODERN APPLICATION DEVELOPMENT

MULTI-FACULTY

TYPE OF COURSE : New | Elective | UG
COURSE DURATION : 12 weeks (27 Jan' 20 - 17 Apr' 20)
EXAM DATE : 25 Apr 2020

INTENDED AUDIENCE **:** B.E/B.Tech, B.Sc, M.E/M.Tech, M.S, M.Sc

PREREQUISITES **:** Undergraduate Programming Experience

INDUSTRY SUPPORT **:** All Industries that use Computing

COURSE OUTLINE :

This course assumes that the student knows how to develop a typical monolithic desktop single user application. We gradually morph such a desktop app into a web app that uses distributed components and serves multiple users at the same time.

In this process, we see how familiar ideas like user interfaces, data storage, and front-end vs backend distinctions get reformulated in the new web aware distributed context. We discover how the assumption of multiple users via multiple access points adds new concerns such as identity management and security, and learn techniques for addressing them.

At the end of this course you should be able to build a basic distributed web app and analyse constituent elements of the web and mobile applications that you use daily.

ABOUT INSTRUCTOR :

Prof. Aamod Sane
Flame University, Pune
Persistent Computing Institute, Pune

Prof. Abhijat Vichare
Persistent Computing Institute, Pune

Prof. Madhavan Mukund studied at IIT Bombay (BTech) and Aarhus University (PhD). He has been a faculty member at Chennai Mathematical Institute since 1992, where he is presently Professor and Dean of Studies. His main research area is formal verification. He has active research collaborations within and outside India and serves on international conference programme committees and editorial boards of journals.

COURSE PLAN :

Week 1 and 2 : From desktop application to internet application

Week 3 and 4 : Stateful applications

Week 5 and 6 : The front end

Week 7 and 8 : Databases and Simple files

Week 9 : Setting up a website

Week 10 : Using third party web services

Week 11 and 12: Extended project