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Cloud Computing

By Prof. Soumya Kanti Ghosh | IIT Kharagpur

Learners enrolled: 75222

Prof S K Ghosh



ABOUT THE COURSE :

Cloud computing is a scalable services consumption and delivery platform that provides on-demand computing service for shared pool of resources, namely servers, storage, networking, software, database, applications etc., over the internet. It is a model for enabling ubiquitous, on-demand access to a shared pool of configurable computing resources, which can be rapidly provisioned and released with minimal management effort. This course will introduce various aspects of cloud computing, including fundamentals, management issues, security challenges and future research trends. This will help

Handwritten notes:
N. Narayan
Shaikpct, Hyderabad-500 104

Students (both) and researchers to use and explore the cloud computing platforms.
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INTENDED AUDIENCE : B.E., B.Tech., M.Tech., Ph.D., etc.
PREREQUISITES : Basics of Computer Architecture and Organization, Networking
INDUSTRY SUPPORT : IT industries

Summary

Course Status :	Ongoing
Course Type :	Elective
Duration :	12 weeks
Category :	<ul style="list-style-type: none"> o Computer Science and Engineering o Programming o Systems
Credit Points :	3
Level :	Undergraduate
Start Date :	24 Jul 2023
End Date :	13 Oct 2023
Enrollment Ends :	07 Aug 2023
Exam Registration Ends :	18 Aug 2023
Exam Date :	28 Oct 2023 IST

Note: This exam date is subjected to change based on seat availability. You can check final exam date on your hall ticket.

This is an AICTE approved FDP course

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PRINCIPAL
G. Narayanamma Institute of
Technology & Science (for women)
(AUTONOMOUS)
Shaikpet, Hyderabad - 500 084

Course ID:


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Week 1: Introduction to Cloud Computing

Week 2: Cloud Computing Architecture

Week 3: Service Management in Cloud Computing

Week 4: Data Management in Cloud Computing

Week 5: Resource Management in Cloud

Week 6: Cloud Security

Week 7: Open Source and Commercial Clouds, Cloud Simulator

Week 8: Research trend in Cloud Computing, Fog Computing

Week 9: VM Resource Allocation, Management and Monitoring

Week 10: Cloud-Fog-Edge enabled Analytics

Week 11: Serverless Computing and FaaS Model

Week 12: Case Studies and Recent Advancements

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Books and references

1. Cloud Computing: Principles and Paradigms, Editors: Rajkumar Buyya, James Broberg, Andrzej M. Goscinski, Wiley,2011
2. Enterprise Cloud Computing - Technology, Architecture, Applications, Gautam Shroff, Cambridge University Press, 2010
3. Cloud Computing Bible, Barrie Sosinsky, Wiley-India, 2010
4. Cloud Security: A Comprehensive Guide to Secure Cloud Computing, Ronald L. Krutz, Russell Dean Vines, Wiley- India,2010

Instructor bio



Prof. Soumya Kanti Ghosh

IIT Kharagpur

Prof. Soumya K. Ghosh received the Ph.D. and M.Tech. degrees from Department of Computer Science and Engineering, Indian Institute of Technology (IIT), Kharagpur, India. Presently, he is a Professor with Department of Computer Science and Engineering, IIT Kharagpur. Before joining IIT Kharagpur, he worked for the Indian Space Research Organization in the area of satellite remote sensing and geographic information systems. He has more than 200 research papers in reputed journals and conference proceedings. His research interests include spatial data science, spatial web services and cloud computing.

[Handwritten Signature]
 PRINCIPAL
 G. Narayanaamma Institute of
 Technology & Science (for woman)
 (AUTONOMOUS)
 Shaikpet, Hyderabad-500104