

ABOUT AKAL UNIVERSITY

Three centuries ago, the tenth Master, Guru Gobind Singh Ji stayed at Talwandi Sabo, finalized the compilation of Guru Granth Sahib Ji and prophesied that this place will manifest as Guru Ki Kashi[1] a great Centre of teaching and learning from where will emerge great scholars of Sikhism. About two centuries thereafter, establishment of Gurum at Vidyalaya by Sant Atar Singh Ji Maharaj was the first step in this direction. About a century thereafter, establishment of Akal University, Talwandi Sabo under the leadership of H.E Baba Iqbal Singh Ji Baru Sahib Wale was culmination of what the tenth Guru prophesied about three centuries ago. The University offers Undergraduate and Postgraduate Honors courses and Ph.D programmes in Mathematics, Physics, Chemistry, Botany, Zoology, Psychology, Economics, Commerce, English, Punjabi and Computer Science Engineering. The University also offers BCA, B.Tech. (CSE), MBA, and four year Integrated B.Sc.- B.Ed./B.A.- B.Ed program. The university has got State of the Art Infrastructure and qualified, experienced and dedicated faculty to transform young minds to good citizens and professionals to match the requirements of corporate and global market

DEPARTMENT OF CSE

The department has been established to produce globally competent graduates having creative skills and ethical values keeping pace with ever - changing technologic al advancements in Computer Science and Engineering. Currently the Department of Computer Science offers B.Tech (CSE-Data Science and AI/ML), B.C.A. (Data Analytics and AI/ML) and Ph.D (Computer Science) The Department provides exposure to emerging technologies as well as futuristic technologies like High Performance Computing, Machine Learning, Data Analytics, Information and Cyber Security and Software Development. To provide full hands-on exposure to most recent and advanced software, the department laboratories are fully equipped with high speed computing facilities.

ORGANIZING COMMITTEE

Chief Patron:

Baba (Dr.) Davinder Singh Ji,
Chancellor,
Akal University, Talwandi Sabo

Patron:

Prof (Dr.) Gurmail Singh,
Vice Chancellor,
Akal University, Talwandi Sabo

Advisory Committee:

Major General (Dr.) G.S. Lamba,
Dean Academic Affairs, AU

Prof. (Dr.) Sukhjeet Singh Dhindsa
Registrar, AU

Prof. (Dr.) Pardeep Singh Cheema
Director IQAC, AU

Prof. (Dr.) Sandeep Singh
Dean Student Welfare, AU

Convener:

Dr. Upinder Kaur,
Head, Dept. of CSE, AU

Coordinators:

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Dr. Parneet Kaur, Dept. of CSE, AU
Dr. Harmandeep Kaur, Dept. of CSE, AU
Ms. Sandeep Kaur, Dept of CSE, AU
Ms. Rajni Rani, Dept. of CSE, AU
Ms. Aanchal Sharma, Dept. of CSE, AU
Mr. Harpal Singh, Dept. of CSE, AU
Mr. Aijaz Ahmad Chopan, Dept. of CSE, AU
Mr. Zubair Fayaz, Dept. of CSE, AU
Mr. Arshid Ahmad Khan, Dept. of CSE, AU



**FDP AND SDP
ON
CLOUD COMPUTING
(IN COLLABORATION WITH
EICT ACADEMY IIT KANPUR)**

26 Feb to 3 March, 2024

Time:- 06:00 PM to 08:00 PM

Organized By
**Department of
Computer Science &
Engineering
AKAL UNIVERSITY**

www.auts.ac.in

ABOUT CLOUD COMPUTING

Cloud computing is a technology paradigm that delivers computing services over the internet, offering on-demand access to resources like storage and processing power. Users can scale these services dynamically, paying only for what they consume. Major providers, including AWS, Azure, and GCP, have transformed the IT landscape by providing cost-effective and flexible solutions for businesses and individuals.



EXPECTED OUTCOME

- Adopting cloud computing can result in significant cost savings for businesses by eliminating the need for upfront investments in physical infrastructure.
- The scalability of cloud services allows organizations to efficiently adjust resources based on demand, promoting flexibility and agility.
- Additionally, improved collaboration, global accessibility, and enhanced security contribute to increased productivity and innovation within the digital landscape.

REGISTRATION PROCESS AND PAYMENT DETAILS

Eligibility:

Registration Process And Payment Details This SDP takes care of the growing needs of research and Academia: Under-Graduate Students/Researchers/ Post Graduates/Ph.D. Scholars /etc.

REGISTRATION DEADLINE: 19 February, 2024

After successful registration & payment received, the participants will receive a confirmation via email

CERTIFICATION:

Participants who complete the programmed satisfactorily will be awarded a certificate of participation.

How to Apply:

Interested participants can register online by filling up the registration form online

Registration Fees:

For Research Scholars/Post-Graduates/ Ph. D Scholars/ Students: ₹499/-

The Participants can pay their fee through online mode

Registration and Payment Link

Use the link for registration and payment:

<https://ifacet.iitk.ac.in/product/cloud-computing-aws/>

Contact Us

Email: hod_cs@auts.ac.in

Contact: 8837832853, 8194801454

AKAL UNIVERSITY

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India-151302

CLOUD COMPUTING



CONTENTS

Introduction to Cloud Computing

- What is the cloud?
- History of Cloud Computing
- How Cloud Computing Works
- Advantages & Disadvantages
- Applications for Businesses
- Cloud Service Providers
- Cloud Computing Architecture
- Cloud Computing Terminology

Cloud Pyramid

- Communication-as-a-Service (CaaS)
- Infrastructure-as-a-Service (IaaS)
- Monitoring-as-a-Service (MaaS)
- Software-as-a-Service (SaaS)
- Platform-as-a-Service (PaaS)

Virtualization concepts

- Types of Virtualization & its benefits
- Introduction to Various Virtualization OS
 - VMware, KVM etc

Public Cloud Services - using Amazon Cloud

- Types, Priced and open source products in the market
- Overview of Public Cloud vendors
- Overview of Private cloud products
- Introduction to Amazon AWS cloud - Pricing, Regions Availability Zones, Types of instances
- Overview of different services of AWS
- Consuming EC2 Instance Service from AWS
- (Creating Linux and Windows Instances from the available AMIs connecting and remote control from the laptop)
- Consuming EBS block storage service from AWS - Adding volumes to Instances Taking snapshots, creating volumes from snapshots, attaching volumes to running instances
- Using Elastic IP service -Assigning Public IP addresses and connecting from the internet
- Installing additional software components on the instances
- Automating installations and tasks at the booting time of a instance
- Using the Load Balancers for load distribution(ELB)
- Installing command line tools
- Creating own AMIs
- Using AWS S3 service, CORS, Glacier
- Creating a Mysql database using RDS service
- IAM -Identity Access Management, IAM Policies

Cloud Security

- Identifying Confidential data in S3 via AWS Macie
- Securing EC2 & S3 for secure connections
- Centralization of logs of EC2 in CloudWatch