# ALVA'S

#### **ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY**

#### Department of Computer Science & Engineering

(Accredited by NAAC with A+ Grade, & NBA, New Delhi 2019-2025)

# Workshop on Blockchain Technologies: Research Insights to Practical Implementation

Resource Person: Dr. Shashidhar R,

Security and Blockchain Expert Samsung Research Institute Bangalore.

#### **Event Summary**

The Department of Computer Science & Engineering organized a two-day hands-on workshop on Blockchain Technology on 20<sup>th</sup> and 21<sup>st</sup> May 2024. The speaker was Dr. Shasidhar R, an expert in Security and Blockchain from Samsung Research Institute Bangalore.

#### **Target Audience:**

IEEE Student Members and 4th Semester B.E. Students of CSE Streams.

#### **Event Outcomes:**

Students are able to understand Blockchain technology tools and use cases.

#### Report on Blockchain Technologies: Research Insights to Practical Implementation

The Department of Computer Science & Engineering organized a hands-on workshop on Blockchain Technology in the Data Structure Lab. The speaker was Dr. Shasidhar R, an expert in Security and Blockchain from Samsung Research Institute Bangalore. The workshop was held on 20th May 2024 and 21st May 2024 from 9:00 AM to 5:00 PM. Mr. Pramod, a student from the 4th semester, welcomed the gathering and introduced the expert to the audience.



Dr. Manjunath Kotari, Professor and Head of the Department of Computer Science and Engineering, and Dr. Chandra Naik, Associate Professor and coordinator of the event, were present. More than 60 students from the IEEE Members & 4th semester attended the workshop and benefited

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from it.



The highlights of the workshop are listed below.

- 1. Blockchain and Crypto Fundamentals
- 2. Smart contracts and Solidity Programming
- 3. Blockchain use cases and research directions

On day-1, morning session, the speaker introduced Blockchain and Crypto Fundamentals. He discussed various components of Blockchain such as transactions, decentralized peers, encryption processes, consensus mechanisms, crypto wallets, transactions, and smart contracts. Furthermore, he discussed the mining process, the Byzantine Generals' Problem, proof of work, proof of stake, types of blockchains, and blockchain platforms.

The afternoon session started at 1:40 pm. During this session, the speaker introduced the Solidity programming language, discussing its syntax and semantics, including variables, operators, arrays, conditional statements, looping statements, and functions. Later, he demonstrated how to write a simple smart contract using Solidity programming.



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On day-2, morning session, the speaker discussed running a private block chain network, focusing on the Geth node and setting up a personal block chain network. Furthermore, he covered writing smart contracts using Truffle.

In afternoon Session, the resource person taught attendees how to develop decentralized applications and discussed a few mini-projects using the Ethereum Blockchain. Finally, he provided insights into industry use cases of block chain and research directions.

The event coordinator Dr. Chandra Naik gave a vote of thanks and presented a memento to the expert on behalf of AIET.

Head of the Department

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Date: 11/05/2024

From,

Dr. Chandra Naik, Associate Professor, Department of CSE AIET, Mijar.

Through,

Head of the Department Department of CSE AIET, Moodbidri

To,

The Principal, AIET, Moodbidri

Respected Sir,

Subject: Seeking permission to conduct a workshop on Blockchain Technologies: Research Insights to Practical Implementation for students of CSE stream.

With reference to the above cited subject, a hands-on workshop on "Blockchain Technologies: Research Insights to Practical Implementation" will be organised for students of CSE streams on 20<sup>th</sup>& 21<sup>st</sup>, May 2024 in the department of CSE and the resource person is Dr. Shashidhara R, Blockchain expert, Samsung R&D Bangalore. Therefore, kindly give permission to conduct the workshop and do the needful.

Thanks & Regards

Coordinator

Head 69 the Department
Dept. of Computer Science & Engineering

Alva's Institute of Engineering and Technology
Mijar, Moodubidire 574 225, D.K. Karnataka, India

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#### Circular

It is informed to all students of CSE stream that the department of CSE is planning to conduct workshop on "Blockchain Technologies: Research Insights to Practical Implementation" on 20<sup>th</sup>& 21<sup>st</sup>, May 2024and the resource person is Dr. Shashidhara R, Blockchain expert, Samsung R&D Bangalore. The registration link will be shared soon. Only first 60 participants are allowed to register for the workshop

Coordinator

Head of the Department

Head of the Department

Dept. of Computer Science & Engineering

Alva's Institute of Engineering and Technology

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CC to:

- 1. All HOD's
- 2. Notice board

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