

# A Reflection Report For

## One Day

## National Workshop

On

# "Internet of Things | NoSQL

## Databases"

August 30,2019

Organized By

Department of Computer Science & Engineering

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Approved by, Dr. R. Anitha

HOD Dept. of CSE

#### ORGANIZING COMMITTEE

Name of the Chief Patron : Dr. M. Sivanandham, Secretary

Name of the Patron : Dr. S. Ganesh Vaidyanathan, Principal

Name of the Convener: Dr. R. Anitha, Prof & HOD/CS

Name of the Coordinators : Dr. R. Jayabhaduri, Asso Prof/CS

Ms. V. Rajalakshmi, AP/CS

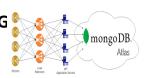
# "Internet of Things | NoSQL

Databases" - Agenda

#### SRI VENKATESWARA COLLEGE OF ENGINEERING, SRIPRUMBUDUR Tk. - 602 117



#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



# NATIONAL WORKSHOP ON INTERNET OF THINGS | NoSQL DATABASES August 30,2019

#### **AGENDA**

8.30 - 8.45	Registration
8.46 - 8.55	Inauguration
8.56 – 9.00	Introduction about the Chief Guest by Dr. R. Anitha, HOD/CS
9.01 - 11.00	Guest lecture on "Internet of Things and NoSQL Databases" by
	Mr. Amit Kumar, Software Architect, IBM India, Bengaluru
11.01 - 11.10	Break
11.11 - 12.10	Internet of Things: Trends, Applications and Research Directions by
	Dr. R. Jayabhaduri, Associate Professor, CSE, SVCE
12.11 - 13.00	Lunch Break
13.01 - 15.05	Hands-on Training on NoSQL Databases by Mr. Amit Kumar
15.06 - 15.15	Valedictory Function

# Reflection Report

The department of Computer Science and Engineering organized a one day Handson Workshop on "Internet of Things | NoSQL Databases" on August 30,2019 in CS-Lab 8 (Artificial Intelligence Lab), CS department on August 30,2019.

# Objective of the Workshop

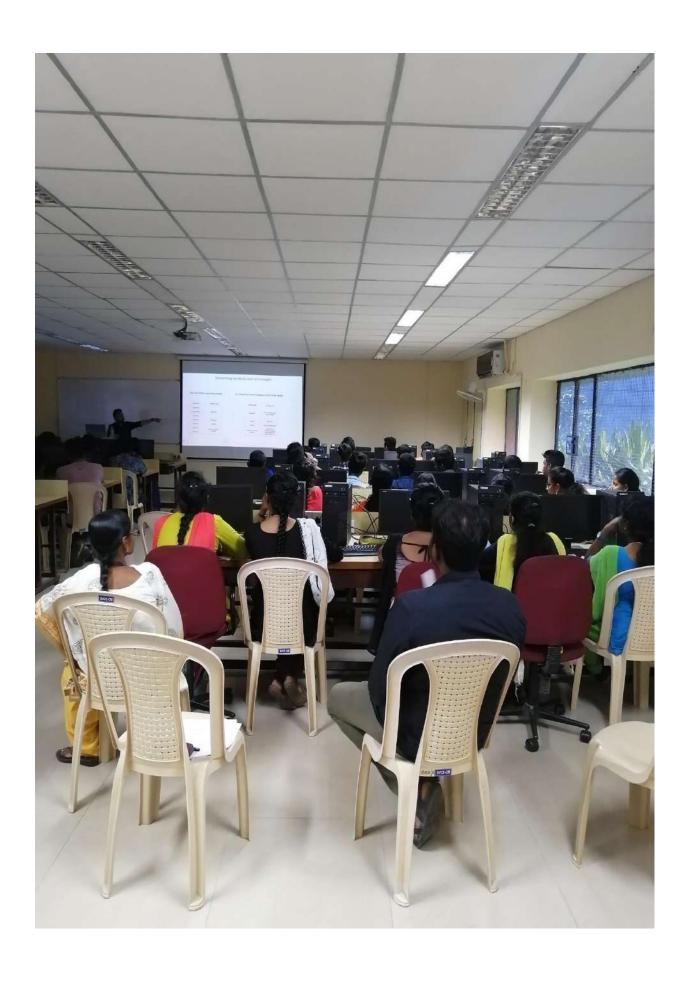
The workshop is intended to provide an opportunity for students, faculty members and research scholars for upgrading their knowledge and acquiring practical skills in the area of Internet of Things and NOSQL Databases. The programme included hands-on sessions on MongoDB CRUD operations in Linux environment.

The Workshop commenced with a prayer song by Ms. R. Rithania, a second year student of Computer Science and Engineering. Dr. R. Jayabhaduri, Associate Professor/CS, Co-ordinator welcomed the Chief guest Mr. Amit Kumar, Software Architect, IBM India, Bengaluru and invited Dr. R. Anitha, Professor & HOD/CS, Convener delivered the inaugural address and explained about the objectives and importance of this workshop. She invited and introduced the resource person Mr. Amit Kumar to the audience.



The first session was a talk on "Internet of Things (IoT) and No-SQL Databases" by Mr. Amit Kumar. Mr. Amit Kumar first explained about Internet of Things — Need for IoT, IoT Architectural Concepts and IoT Security. He also discussed in detail about the differences by mapping the IoT network protocols to the TCP/IP model.

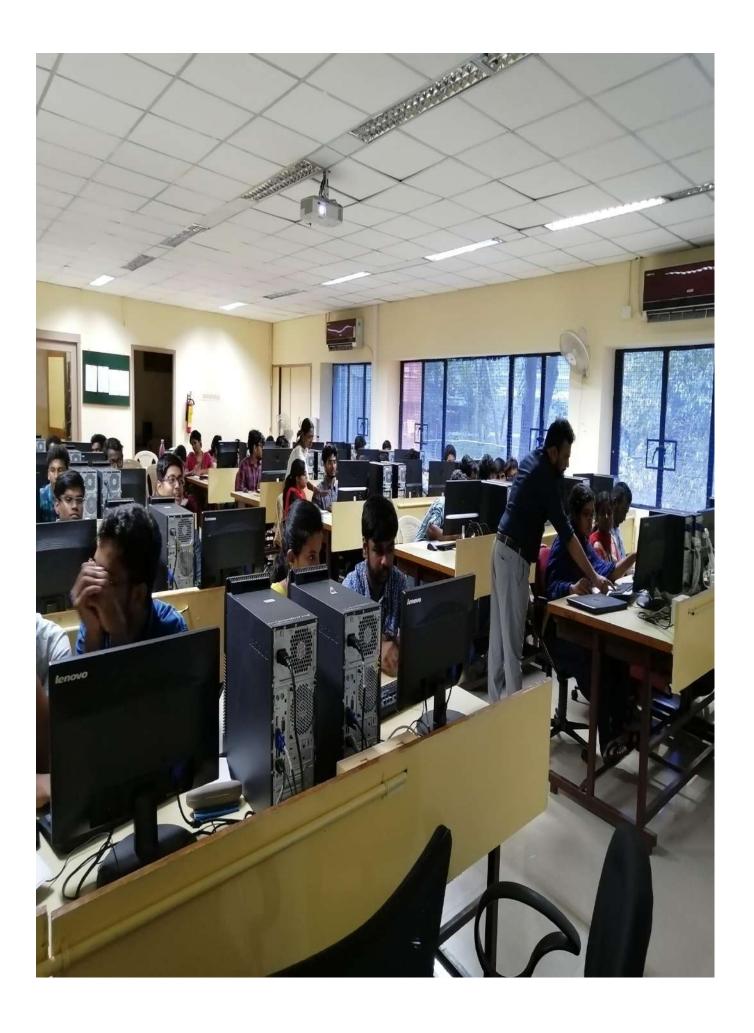
Coming to No-SQL Databases, he started with Relational Databases and basic SQL commands. Most of the modern applications need MongoDB which is a general purpose, document-based, distributed database. He vividly illustrates the role of MongoDB in Intelligent Operational Data platform along with MongoDB IoT Reference Architecture.

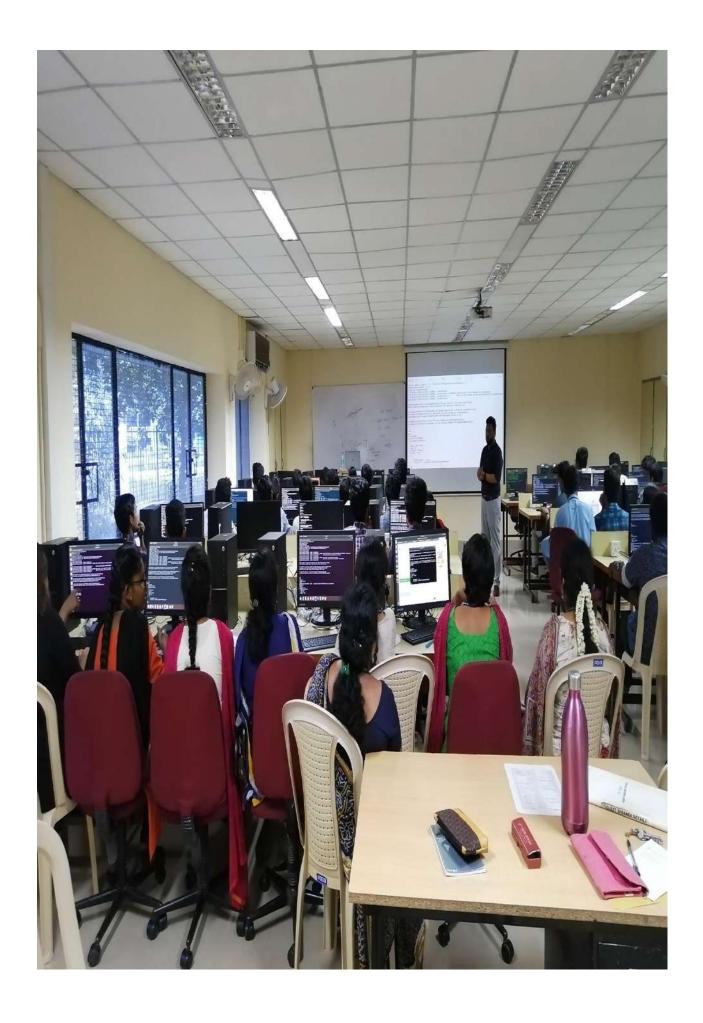


Session II was a talk on "Internet of Things: Trends, Applications and Research Directions" by Dr.R.Jayabhaduri. She presented a case study about Wearable Fitness Trackers. She illustrated how wearable fitness trackers measure steps, recognize activities like walking, climbing and running, and discovering sleep patterns like Light sleep, Deep Sleep and REM sleep using Huawei Honor Band 4. She vividly explained how to generate data using fitness band, how to collect the data using Bluetooth by integrating fitness band and Smartphone and the methodologies to process the data by applying Machine Learning and Deep Learning algorithms for Predictive Modeling.

Post-lunch was the hands-on session on "MongoDB Commands" by Mr.Amit Kumar which includes the following topics – Queries for read operations in Mongo shell, Database Commands and CRUD operations.







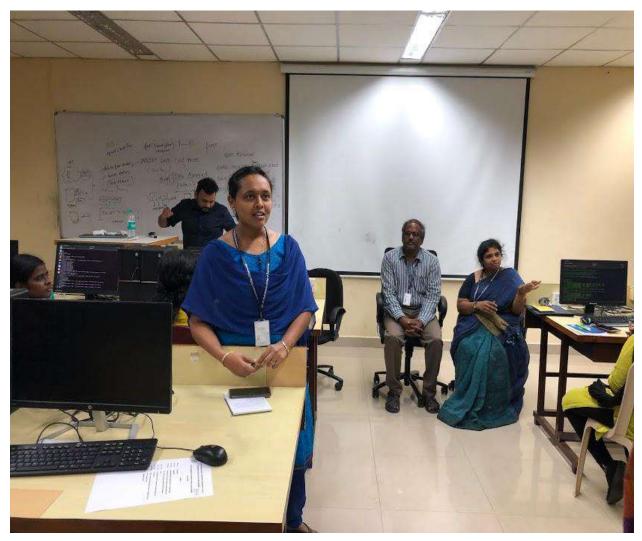
The Hands-on Workshop attracted a heterogeneous group of 76 participants that encompassed second and third year CS students and faculty members from other departments (IT, Library) of our esteemed institution.

Participant details: Total - 76

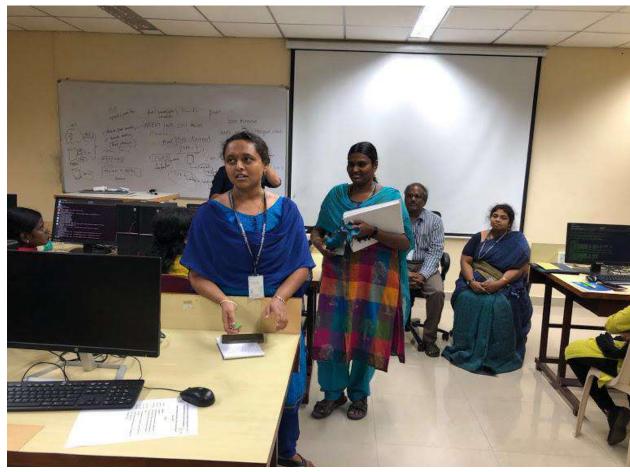
S.No	Category	No of participants
1	UG Students	55
2	Faculty	21
	Total	76

The programme was well received and appreciated by all participants. Participant evaluation form was issued to the participants to obtain feedback.

The Chief Guest for the Valedictory event was Dr.J.Venkatesan, Professor and Head, Department of Automobile Engineering and Dean Student Welfare, SVCE. Ms. V.Rajalakshmi, Co-ordinator and AP/CS delivered the valedictory address.







Dr. J. Venkatesan honored the Resource person Mr. Amit Kumar for his wonderful guest lecture and hands-on session on IoT | MongoDB which was highly appreciated by the participants.



Dr. J. Venkatesan distributed the certificates to all participants.







# Internet of Things | NoSQL Databases Workshop Photos

Click the link to access the photos: https://photos.app.goo.gl/tbQyWBfVMGyFPGFi9

## **APPENDIX**

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# A. Resource Person Profile



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#### Profile of Mr. Amit Kumar (amit.raja@in.ibm.com)

Amit Kumar is a Software Architect with India Software Lab, IBM, Bengaluru. Started his career as an intern with IBM, building software products & solutions for retail industry and worked on many Smarter City projects including smarter transportation systems and smart surveillance solutions. He has over 13 years of experience in the field of Information Technology and holds 13 patents and has co-authored various technical articles. He specializes in Cognitive solutions, database technologies and his areas of interest include Cloud, Mobile and Security. Currently he is working as Architect for Apple Platforms, IBM MaaS360 and helps designing security products for managing Apple devices. He is passionate of giving technical talks and has participated as speaker in many conferences across the globe and pursuing his PhD with IIT-M on the field of Game Theory and Quad Computing.



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#### August 30,2019

#### Profile of Dr. R.Jayabhaduri

Dr. R.Jayabhaduri is an Associate Professor of Computer Science at Sri Venkateswara College of Engineering, Chennai. She received her B.E. and M.E. degrees in Computer Science and Engineering from Mepco Schlenk Engineering College, Sivakasi, India, in 2001 and 2003, respectively. She received her Ph.D. degree in Computer Science and Engineering from Anna University, Chennai, in 2016. She has been in academia since May 2003.

Her research interests include Single-objective optimization, Artificial Intelligence, Evolutionary Algorithms, Soft Computing techniques. Her teaching interests are Artificial Intelligence, Information Retrieval, Cryptography and Network Security. She has published 3 papers in journals and 2 papers in international conferences. She is a life member of ISTE.

She has organized and has been part of conducting several hands-on workshops and Faculty Development Programmes at SVCE.

# B. Online Registration Form

### https://forms.gle/bodHZYBiFc9BTN9K8

## Registration Form "Internet of Things | NoSQL Databases" - August 30, 2019 **Choose Participation Category** Student Faculty Research Scholar Name of the Participant Your answer Course O B.E. O M.E Email id Your answer Mobile No Your answer Department Your answer Year (If Student) Choose -SUBMIT