



A Report
On
AICTE & GTU sponsored
One Week
Faculty Development Programme (FDP)
On

“CLOUD COMPUTING WITH AMAZON WEB SERVICE(AWS)”

Date: 25th November 2019
to 29th November 2019
Venue: B207 Lab

Organized by:
Information Technology Department
BVM Engineering College
(An Autonomous Institution)
VallabhVidyanagar



Cloud Computing



Organizing Committee

| | | |
|---|--|--|
| CHIEF PATRON Er. Bhikhubhai B. Patel (Hon. Chairman, CVM & Chairman, BOG, BVM) Prof. (Dr). Navin Sheth (Vice Chancellor, GTU) | PATRONS | |
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| COORDINATORS Dr. Vatsal Shah Prof. Kanu G. Patel (Assistant Professors, IT Department) | | |
| PROGRAM TEAM MEMBERS | | |
| Dr. N. B. Prajapati Dr. Z.H.Shah Prof. K. H. Shah Prof. V. M. Agrawal Prof. B.N.Dalwadi | Prof. C. M. Mahant Prof. V. A. Polara Prof. P. N. Bhojak Prof. P. K. Shah Prof. V.A. Kanjariya | |

About CVM

Charutar Vidya Mandal was established in the year 1945 by Shri Bhaikaka and Shri Bhikhabhai saheb as a charitable trust with a prime objective of rural development through education to bring about the social awakening, social upliftment and enrichment.

Over the subsequent years, Dr. H M Patel (the first finance minister of India) consolidated the efforts put in by the founders. Later on, in the 1990s CVM has started various self financed educational institutions in the areas of Technology, Science and Engineering, Commerce and Management under the leadership of Late Shri Dr. C. L. Patel sir. Recently, Er. Bhikhubhai Patel took the charge of CVM as a Chairman. He is a visionary personality with a goal to enhance quality of education using recent technological advancements.

At present, CVM operates 48 educational institutions with 45000 students on the rolls from 18 states and 12 countries across the world

About BVM

BVM works with the Vision : “Produce globally employable innovative engineers with core values.”

BVM is a Premier Institution of CVM founded in 1948. Motto of BVM: Work is Worship. BVM is the First Approved Degree Engineering College of the Gujarat State. More than 18000 engineers have been graduated from this college. BVM College is also first Academic Autonomous Engineering Institute of Gujarat State. BVM offers B.Tech, M.Tech Degree Programs. The College is affiliated to the Gujarat Technological University and is situated at Vallabh Vidyanagar.

About IT Department

The IT department (SF) accredited by NBA for 2 years offers under graduate program in IT. The department is best owed with highly qualified and dedicated faculties, well equipped laboratories and skilled & committed supporting staff. The department conducts seminars, workshops, expert talks regularly on recent topics related to IT.

Program Objectives

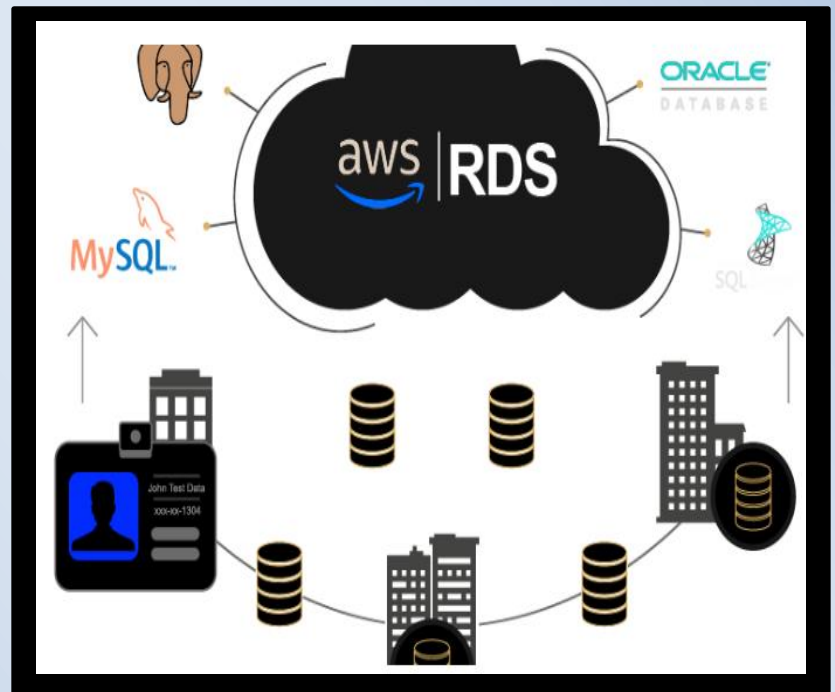
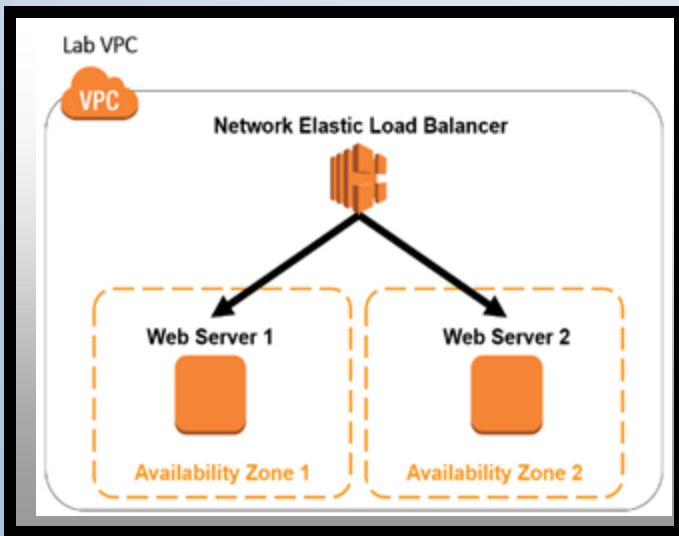
- Participants will understand hardware/software concepts, environment and challenges of cloud computing.
- The participants will be able to build highly scalable, secure and fault tolerant applications in the AWS Cloud.
- Participants will be able to deploy services on AWS cloud environment.

Course Contents

- Introduction to Cloud Computing
- Cloud Computing Models
- Scalability of Applications
- Higher Availability Architecture
- Scalable Resource
- IP Addressing Schemes
- Elastic Load Balancer (ELB)
- Amazon Machine Image (AMI)
- Relational Database Service (RDS) and S3

Eminent Speakers

- **Er. Nilesh Vaghela**
(Founder, Electromech, AWS Advance Consulting Partner)
- **Mr. Mihir Solanki**
(Solution Architect)
- **Ms. Vaibhavi Bharvada**
(Solution Architect)
- **Ms. Vrushi Shah**
(Solution Architect)
- **Dr. Amit Thakkar**
(Associate Professor, CHARUSAT, Changa)
- **Dr. Sanjay Chaudhary**
(Professor and Associate Dean, School of engineering & Applied Science, Ahmedabad University)



List of Participants (With details)

| | | |
|----|-----------------------------|-------------------|
| 1 | Gopi Bhatt | ADIT, Karamsad |
| 2 | Anilkumar L Munani | BBIT, VVNagar |
| 3 | Sunil Shah | BBIT, VVNagar |
| 4 | Hitesh Patel | BBIT, VVNagar |
| 5 | Paresh Tank | BBIT, VVNagar |
| 6 | Shewaramani Jitendrakumar G | BBIT, VVNagar |
| 7 | Bhupendra Patel | DJMIT, Mogar |
| 8 | Rahul D Patel | DJMIT, Mogar |
| 9 | Jay Vala | GCET, VVNagar |
| 10 | Nirav Raja | GCET, VVNagar |
| 11 | Nirav Desai | GCET, VVNagar |
| 12 | Namrata Shroff | GEC, Gandhinagar |
| 13 | Bhumika H. Patel | GIDC, Abrama |
| 14 | Vibhuti P. Patel | GIDC, Abrama |
| 15 | Dr. Suchita Patel | ISTAR, VVNagar |
| 16 | Niky Khabya | ISTAR, VVNagar |
| 17 | Dr. Unnati | ISTAR, VVNagar |
| 18 | Sunit Parmar | MBIT, New VVNagar |
| 19 | Jayna Donga | MBIT, New VVNagar |
| 20 | Prajapati Keyur | MBIT, New VVNagar |
| 21 | Aakash Dave | MBIT, New VVNagar |
| 22 | Parth singh | Parul University |
| 23 | Nishaben Panchal | Parul University |
| 24 | Hitesh Ravani | SSASIT, Surat |
| 25 | Jayna B. Shah | SVIT, VASAD |
| 26 | Shrina Patel | SVIT, VASAD |
| 27 | Pravin K Jadav | SVIT, VASAD |
| 28 | Paresh M Patel | SVIT, VASAD |
| 29 | Anoop Pravinkumar Patel | VGEC, Chandkheda |
| 30 | Robinson P. Paul | BVM, VVNagar |
| 31 | Hiren Patel | BVM, VVNagar |
| 32 | Pranay Shirishbhai Patel | BVM, VVNagar |
| 33 | Dr. Keyur Brahmabhatt | BVM, VVNagar |
| 34 | Dr. Nilesh Prajapati | BVM, VVNagar |
| 35 | Prof. Krupali H Shah | BVM, VVNagar |
| 36 | Dr. Vatsal Shah | BVM, VVNagar |
| 37 | Kanubhai Ganpatbhai Patel | BVM, VVNagar |
| 38 | Bijal Dalwadi | BVM, VVNagar |
| 39 | Priyank Bhojak | BVM, VVNagar |
| 40 | Prachi Shah | BVM, VVNagar |

| | TIME | SESSION | EXPERT | TOPIC |
|----------------------------|----------------------|--|--|--|
| DAY 1 25/11/2019 | 9:30 AM to 10:15 AM | Registration of the participants & Breakfast | | |
| | 10:15 AM to 11:00 AM | Inauguration at LRUC Hall | | |
| | 11:00 AM to 11:15 AM | Breakfast | | |
| | 11:15 AM to 1:00 PM | Session – 1 | Er. Nilesh Vaghela (Founder, Electromech, AWS Advance Consulting Partner) | Keynote Speech |
| | 1:00 PM to 2:00 PM | Lunch Break | | |
| | 2:00 PM to 3:15 PM | Session – 2 | Er. Nilesh Vaghela (Founder, Electromech, AWS Advance Consulting Partner) | Digital Innovation |
| | 3:15 PM to 3:30 PM | Tea Break | | |
| | 3:30 PM to 5:00 PM | Session – 3 | Er. Nilesh Vaghela (Founder, Electromech, AWS Advance Consulting Partner) | Global Infrastructure and Service Introduction |
| DAY 2 26/11/2019 | 10:00 AM to 10:30 AM | Breakfast | | |
| | 10:30 AM to 12:30 PM | Session – 1 | Er. Nilesh Vaghela (Founder, Electromech, AWS Advance Consulting Partner) | Route53, S3 Concepts and Hands on |
| | 12:30 PM to 1:30 PM | Lunch Break | | |
| | 1:30 PM to 3:00 PM | Session – 2 | Er. Nilesh Vaghela (Founder, Electromech, AWS Advance Consulting Partner) | CloudFront Concepts and Hands on |
| | 3:00 PM to 3:30 PM | Tea Break | | |
| | 3:30 PM to 5:00 PM | Session – 3 | Mr. Mihir Solanki (Solution Architect) | EC2 Hands On |
| DAY 3 27/11/2019 | 10:00 AM to 10:30 AM | Breakfast | | |
| | 10:30 AM to 12:30 PM | Session – 1 | Ms. Vaibhavi Bharvada Solution Architect | VPC Hands on |
| | 12:30 PM to 1:30 PM | Lunch Break | | |
| | 1:30 PM to 3:00 PM | Session – 2 | Ms. Vaibhavi Bharvada Solution Architect | Cloudfront concepts and Hands on |
| | 3:00 PM to 3:30 PM | Tea Break | | |
| | 3:30 PM to 5:00 PM | Session – 3 | Ms. Vrushi Shah (Solution Architect) | RDS concepts and Hands on |

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| DAY 4 28/11/2019 | 10:00 AM to 10:30 AM | Breakfast | | |
| | 10:30 AM to 12:30 PM | Session – 1 | Ms. Vrushi Shah Solution Architect | Load Balancer Hands on |
| | 12:30 PM to 1:30 PM | Lunch Break | | |
| | 1:30 PM to 3:00 PM | Session – 2 | Ms. Vrushi Shah Solution Architect | Cloud Watch, SNS Hands on |
| | 3:00 PM to 3:30 PM | Tea Break | | |
| | 3:30 PM to 5:00 PM | Session – 3 | Ms. Vaibhavi Bharvada Solution Architect | Wordpress, Project |
| | | | | |
| DAY 5 29/11/2019 | 10:00 AM to 10:30 AM | Breakfast | | |
| | 10:30 AM to 12:00 PM | Session – 1 | Dr. Amit Thakkar (Associate Professor, CHARUSAT, Changa) | Machine Learning usage in Cloud |
| | 12:00 PM to 1:00 PM | Lunch Break | | |
| | 1:00 PM to 2:00 PM | Session – 2 | Dr. Sanjay Chaudhary Professor and Associate Dean, School of engineering & Applied Science, Ahmedabad University | Research Advances in Cloud Computing |
| | 2:00 PM onwards | Valedictory | | |
| | | | | |

INAUGURAL FUNCTION

The Inauguration Ceremony of the event commenced on 25th November 2019, at 10:00 AM. The inaugural session was chaired by Chief Guest, Dr. S.G.Patel (Hon. Jt. Secretary, CVM), Dr. Darshak Thakore (In charge Principal, BVM), Mr. Nilesh Vaghela (Founder, Electromech, AWS Advance Consulting Partner), Dr. Keyur Brahmhatt (Convener of STTP and Head of IT department), Dr Vatsal Shah & Prof Kanu Patel (Coordinators of FDP) & all the faculty participants were also present during the inauguration of STTP.

As per the Indian tradition, the FDP was inaugurated with Prayer. Prof. Krupali Shah had welcomed all and also had given introduction of all Dignitaries on the dais and invited guests.

Dr. D.G.Thakore (In charge Principal, BVM Engineering College) gave the opening remarks on the occasion. He informed that college always supports these kinds of faculty development programs through which the knowledge can be passed to students for their development in modern era. Dr. Keyur Brahmhatt (Convener of FDP) briefed all about the FDP and its importance. He explained various outcome of the program. He had given brief outline of program and requested to all participants to enrich their knowledge from this FDP by effective participation.

Mr Nilesh Vaghela, Chief Guest of the function, discussed the fundamental concepts of cloud computing and AWS. He discussed various services provided by AWS and how it manages on cloud. He has also discussed about importance of various topics regarding other FDP.

GLIMPSES OF INAUGURAL FUNCTION OF STTP



About the Eminent Speakers and their Expert Talks

DAY 1: 25TH NOVEMBER, 2019

Expert Name: Mr. Nilesh Vaghela

Designation & Organization:

Founder, Electromech, AWS Advance Consulting Partner

Topics: Global Infrastructure and Service Introduction



He started his session by explaining various AWS Cloud infrastructure is built around AWS Regions and Availability Zones. Availability Zones consist of one or more discrete data centers, each with redundant power, networking, and connectivity, housed in separate facilities. He saw various zone and regions to participants.



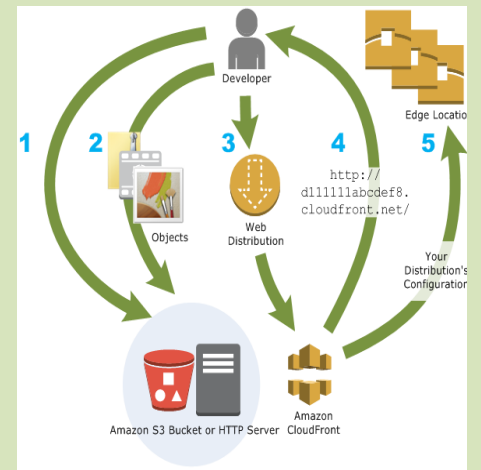
DAY 2: 26TH NOVEMBER, 2019

Expert Name: Mr. Nilesh Vaghela

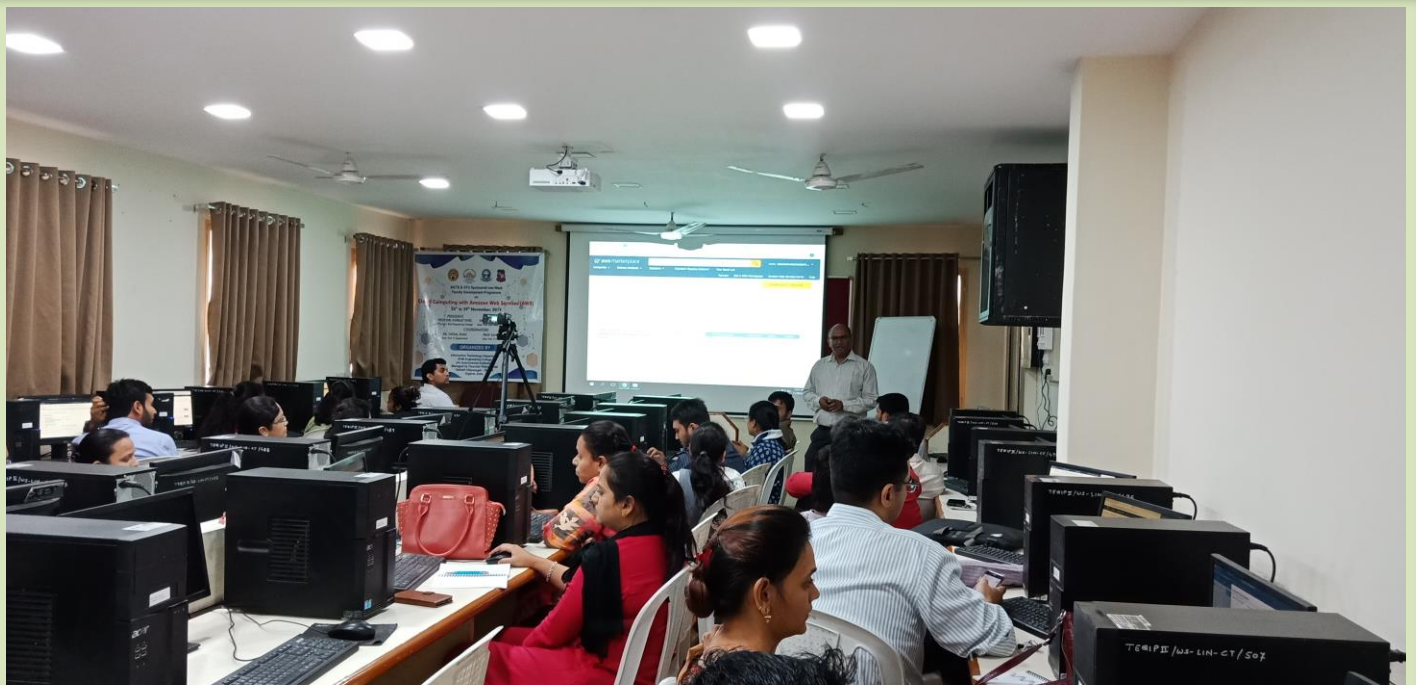
Designation & Organization:

Founder, Electromech, AWS Advance Consulting Partner

Topics: S3 Concepts and Hands on, CloudFront Concepts and Hands on



First he has explained about concept of S3 and cloud front with its benefits like it store contents secure and scalable way. S3 is easy to set up and use, and is designed to store and retrieve any number of files or objects from anywhere on the internet. It's simple to use and offers durable, highly available, and scalable data storage at low cost. CloudFront is a content delivery network (CDN) service that delivers static and dynamic web content, video streams, and APIs around the world, securely and at scale.

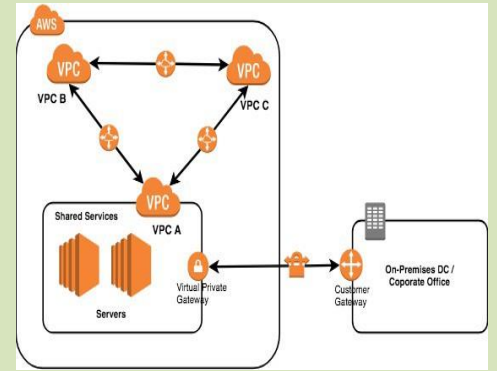


DAY 2: 26TH NOVEMBER, 2019

Expert Name: Mr. Mihir Solanki

Designation & Organization:
(Solution Architect)

Topics: VPC Concept
and Hands On



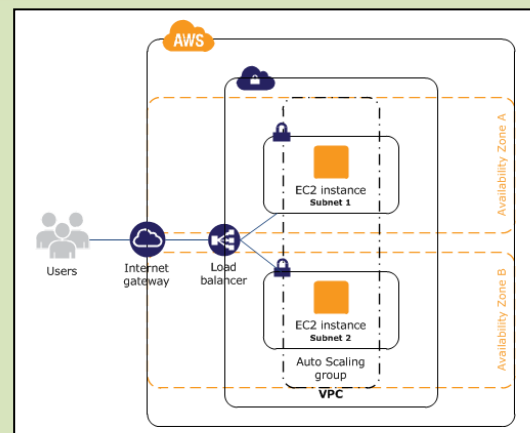
Mr. Mihir Solanki has explained basics of VPC like Amazon Virtual Private Cloud (Amazon VPC) lets you provision a logically isolated section of the AWS Cloud where you can launch AWS resources in a virtual network that you define. You have complete control over your virtual networking environment, including selection of your own IP address range, creation of subnets, and configuration of route tables and network gateways. At last he delivered hands-on session on VPC



DAY 3: 27TH NOVEMBER, 2019

Expert Name: Ms. Vaibhavi Bharvada & Ms. Vrushi Shah
Designation & Organization:
(Solution Architect)

Topics: EC2 concepts
and Hands on



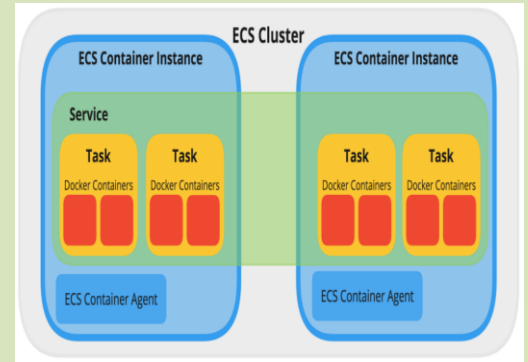
First Ms. Vaibhavi Bharvada has started her session with features of EC2 like Preconfigured templates for your instances, known as Amazon Machine Images (AMIs), Secure login information for your instances using key pairs etc. After that Ms. Vrushi Shah has her hands-on for launching EC2 instances, connecting instances and cleaning instances.



DAY 4: 28TH NOVEMBER, 2019

Expert Name: Ms. Vaibhaivi Bharvada & Ms. Vrushi Shah
Designation & Organization:
(Solution Architect)

Topics: Container and ECS concepts



Both experts have started their session with explaining concepts of container and move on Hands – on session for launching Amazon ECS container instance. An Amazon EC2 instance that is running the Amazon ECS container agent and has been registered into a cluster. When you run tasks with Amazon ECS using the EC2 launch type, your tasks are placed on your active container instances



DAY 5: 29TH NOVEMBER, 2019

Expert Name: Dr. Amit Thakkar
Designation & Organization:
Associate Professor CHARUSAT,
Changa

Topics: Machine Learning
usage in Cloud



Dr. Amit Thakkar first explained various application of Machine learning provided by AWS. He also saws demo and done hand-on activity to participants like face detection, word extracting from image etc. He also explained how ML makes it easy to obtain predictions for your application using simple APIs, without having to implement custom prediction generation code, or manage any infrastructure.



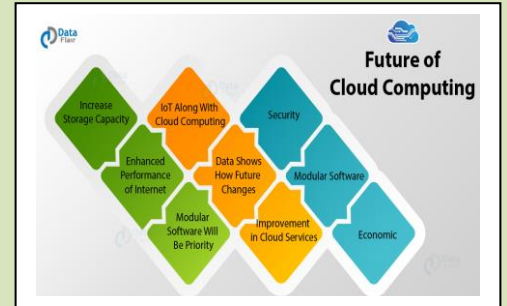
DAY 5: 29TH NOVEMBER, 2019

Expert Name: Dr. Sanjay Chaudhary

Designation & Organization:

Professor and Associate Dean, School of engineering & Applied Science, Ahmedabad University

Topics: Research Advances in Cloud



Dr Sanjay Chaudhary first briefed about cloud computing concepts and he said that We can see the future of Cloud computing as a combination of cloud-based software products and on-premises compute which will help to create hybrid IT solutions. Cloud has many features, which makes future brighter in the IT sector.



Valedictory Session

The FDP had been organized by IT department and concluded with valedictory session at B-205 that included the Certificate distribution to all the participants. In the Valedictory session, Dr. Darshak Thakore (In charge Principal, BVM), Dr. Keyur Brahmbhatt (Head of IT Department & Convener of FDP), Dr. Vatsal Shah & Prof Kanu Patel (Coordinators of the FDP) and valuable participants were present.

Respected In charge Principal Dr. Dharshak Thakore shared his views for the FDP and congratulated to the department and team for organizing the FDP successfully. The concluding remarks were given by Dr. Keyur Brahmbhatt. He shared his view for FDP which need to be taken more with great enthusiasm. Academicians and professionals also shared their feedback about the program. Dr. Vatsal Shah, program coordinator shared his views for the FDP and thanked all the participants, organizers, supporting partners, CVM, all the faculty members and all who directly or indirectly supported the FDP for successful completion.



બિરલા વિશ્વકર્મા મહાવિદ્યાલય ખાતે
'ક્લાઉડ કમ્પ્યુટિંગ વિથ એમઝોન વેબ સર્વિસીસ'
વિષય પર ફેકલ્ટી ડેવલપમેન્ટ પ્રોગ્રામનો પ્રારંભ



આણંદ, તા. ૨૮

ચારૂતર વિદ્યામંડળ સંચાલિત બિરલા વિશ્વકર્મા મહાવિદ્યાલય ખાતે આઈ.ટી. એન્જિનિયરીંગ ડિપાર્ટમેન્ટ દ્વારા (AICTE અને GTU અંતર્ગત તા.૨૫-૧૧-૧૯ના રોજ “ક્લાઉડ કમ્પ્યુટિંગ વિથ એમઝોન વેબ સર્વિસીસ” વિષય પર ફેકલ્ટી ડેવલપમેન્ટ પ્રોગ્રામનો પ્રારંભ કરવામાં આવ્યો.

જેમાં મુખ્ય અતિથિ તરીકે ડૉ. એસ.જી.પટેલ (માનદ્ મંત્રી,

સીવીએમ), નિલેશ વાઘેલા (ફાઉન્ડર, ઈલેક્ટ્રોમેક કોર્પોરેશન), ડૉ. દર્શક ઠાકોરે (હેડ કોમ્પ્યુટર એન્જિ.), ડૉ. કેયુર બ્રહ્મભટ્ટ (હેડ, આઈ.ટી.એન્જિ.), પ્રોગ્રામ કોર્ડિનેટર્સ ડૉ. વત્સલ શાહ તથા પ્રો.કનુ પટેલ ઉપસ્થિત રહ્યાં હતા. સંસ્થાના પ્રિન્સિપાલ ડૉ. ઈન્દ્રજીત એન.પટેલે શુભેચ્છા પાઠવી હતી તથા જણાવ્યું હતું કે વર્તમાન ટેકનોલોજિકલ એડવાન્સમેન્ટને અનુલક્ષીને આ પ્રકારના ટ્રેનિંગ પ્રોગ્રામનું આયોજન સરાહનીય છે.

ડૉ. એસ.જી.પટેલે અધ્યાપકોનો સોસાયટલ અપલિકેશનમાં મહત્વ વિષે જણાવ્યું હતું. નિલેશ વાઘેલાએ એમઝોન વેબ સર્વિસીસ એન્ડ એપ્લિકેશન વિશે માહિતી આપી હતી. ડૉ. દર્શક ઠાકોરે એ ક્લાઉડ કમ્પ્યુટિંગ ટુલ્સ, એન્વાયરનમેન્ટ વિષે જણાવ્યું હતું. ડૉ. કેયુર બ્રહ્મભટ્ટે એમઝોન વેબ સર્વિસના એડવાન્સેજ વિષે જણાવ્યું હતું. ડૉ. વત્સલ શાહે આભાર વ્યક્ત કર્યાં હતાં.



REPORT CREATED BY:

**PROF. BIJAL DALWADI
(ASSISTANT PROFESSOR, IT DEPARTMENT)**

INFORMATION TECHNOLOGY DEPARTMENT

**BVM ENGINEERING COLLEGE
(AN AUTONOMOUS INSTITUTION)**