



## **RV INSTITUTE OF TECHNOLOGY AND MANAGEMENT®**

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)  
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**DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING.**

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### **Workshop on “Computer Vision using Cloud Computing ”**

#### **Report**

DATE: 16<sup>th</sup> and 17<sup>th</sup>, August 2023

TIME: 9:00 AM to 4:45 PM

VENUE: 6th Floor Seminar Hall, RVITM

Number of participants: 59

A computer vision using cloud computing workshop was organized by Dr. Niharika P. Kumar, Associate Professor, Dept. of ISE, RVITM. Mr. Naman Sinha, an Azure DevOps Engineer, Azure Developer, Azure Data Engineer and director of Swipegen was the Resource Person. The workshop aimed to provide participants with in-depth knowledge and practical experience in various aspects of Cloud Computing. The topics covered during the workshop included a broad introduction of cloud computing, hands-on sessions on various APIs and tools of Azure Microsoft, and an introduction to computer vision, function app and static web app.

Workshop on Computer Vision Using Cloud Computing - Day 1:

Introduction to Cloud Computing:

- Discussed the fundamental concepts of cloud computing and its significance in modern technology.
- Explored the benefits of cloud computing, including scalability, cost-effectiveness, and accessibility.

Microsoft Azure Overview:

- Introduced Microsoft Azure as a prominent cloud computing platform.
- Discussed the advantages of using Azure for cloud-based solutions.

Creating an Azure Account:

- Guided participants through the process of creating their own Azure account.
- Explained the account setup steps and security considerations.

Introduction to Computer Vision:

- Defined computer vision and its applications, highlighting its role in image and video analysis.
- Discussed real-world use cases where computer vision technology is being used.

Computer Vision API:

- Introduced the Computer Vision API offered by Microsoft Azure.
- Demonstrated how to use the API to analyse images and extract valuable information, such as text recognition.

#### Hands-On: Text Recognition in Images:

- Led participants through a practical exercise of using the Computer Vision API to extract text from images.
- Walked through the code integration process to implement text recognition in a sample application.

#### Workshop on Computer Vision Using Cloud Computing - Day 2:

##### Recap of Day 1:

- Briefly reviewed the concepts covered on the first day, including cloud computing, Azure, and the Computer Vision API.

##### Introduction to Azure Function App:

- Explained the concept of server less computing using Azure Function App.
- Discussed how Function App can be used to create and deploy APIs without managing the infrastructure.

##### Creating APIs with Function App:

- Led participants through the process of creating their own APIs using Azure Function App.
- Demonstrated how to define input and output parameters for the APIs.

##### Deployment and Launching APIs:

- Explained the deployment process for APIs created with Function App.
- Showed participants how to launch their APIs and make them accessible for external applications.

##### Exploring Additional Azure Tools:

- Introduced participants to various other Azure tools that can complement computer vision projects.
- Mentioned tools such as Azure Cognitive Services, Azure Machine Learning, and more.

##### Project Possibilities:

- Discussed potential projects that participants could undertake using the knowledge gained from the workshop.
- Encouraged participants to explore combining different Azure services for more advanced applications.

##### Q&A and Networking:

- Provided an opportunity for participants to ask questions and clarify doubts.
- Encouraged networking among participants to facilitate knowledge sharing.

##### Conclusion:

- Summarized the key takeaways from the two-day workshop.
- Emphasized the importance of cloud computing and computer vision skills in today's technology landscape.

Both days of the workshop provided participants with valuable insights into cloud computing, Microsoft Azure, computer vision, and the practical applications of these technologies. Participants gained hands-on experience with text recognition and API creation using Azure tools, setting them up for potential projects and further exploration in the field.

