



National Institute of Technology Goa  
Farmagudi, Ponda, Goa - 403401



Global Initiative on Academic Network

# CLOUD SECURITY AND PRIVACY

12-18 December, 2016

Funded by



Ministry of Human Resource Development  
Government of India

# Overview

Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. While cloud computing services have numerous potential benefits, there are also potentially significant privacy and security considerations that should be accounted for before collecting, processing, sharing, or storing institutional or personal data in the cloud. Consequently, institutions should conduct careful risk assessment prior to adoption of any cloud computing service. Cloud computing security or, more simply, cloud security is an evolving sub-domain of computer security, network security, and, more broadly, information security. It refers to the set of procedures, processes and standards designed to provide information security assurance in a cloud computing environment. Cloud security addresses both physical and logical security issues across all the different service models of software, platform and infrastructure. It also addresses how these services are delivered (public, private or hybrid delivery model). Cloud computing and storage solutions provide users and enterprises with various capabilities to store and process their data in third-party data centers. Organizations use the Cloud in a variety of different service models (SaaS, PaaS, and IaaS) and deployment models (Private, Public, Hybrid, and Community). Cloud data privacy is typically a set of requirements, either internally driven or defined by external regulations and guidelines that define how cloud data should be treated to maintain privacy. A cloud computing service's or application's level of security is often evaluated against these cloud data privacy standards to ensure that sensitive information is adequately protected. With Cloud Security and Privacy, you'll learn what's at stake when you trust your data to the cloud, and what you can do to keep your virtual infrastructure and web applications secure.

## Objectives

- i) To review the current state of data security and storage in the cloud, including confidentiality, integrity, and availability,
- ii) To learn about the identity and access management (IAM) practice for authentication, authorization, and auditing of the users accessing cloud services,
- iii) To discover which security management frameworks and standards are relevant for the cloud,
- iv) To understand the privacy aspects you need to consider in the cloud, including how they compare with traditional computing models,
- v) To learn the importance of audit and compliance functions within the cloud, the various standards and frameworks to consider,
- vi) To examine security delivered as a service - a different facet of cloud security.



|                         |   |
|-------------------------|---|
| Modules                 | <p style="text-align: center;"><b>Cloud Security</b><br/>12-14 December, 2016</p> <p style="text-align: center;"><b>Cloud Privacy</b><br/>15-17 December, 2016</p> <p style="text-align: center;">Exam on the course will be held on 18 December, 2016.<br/>Problem solving session will be held during both the modules.</p>   |
| You Should Attend If... | <ul style="list-style-type: none"> <li>➤ You are an Undergraduate/Postgraduate/Doctoral student/Postdoctoral fellow interested to learn the basics of Cloud computing.</li> <li>➤ You are a faculty from academic institution interested in learning how to do research in Cloud security, and Privacy.</li> <li>➤ You are a scientists/researcher from academic/research institutions working on Clouds.</li> <li>➤ You are a participant from the industries working on Cloud Security.</li> </ul> <p style="text-align: center;">(Number of participants for the course is limited to fifty)</p> |
| Fees                    | <p><b>Students (UG/PG/Ph.D):</b>                      INR 1000 (INR 500 for SC/ST students)</p> <p><b>Non-Students:</b></p> <p style="padding-left: 40px;">Faculty Members/Researches:      INR 2000</p> <p style="padding-left: 40px;">Participants from Industry:            INR 4000</p> <p style="padding-left: 40px;">Participants from Abroad:              INR 5000</p> <p>The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage, and internet charges.</p>  |

# The Faculty



**Professor Muttukrishnan Rajarajan** is in the School of Mathematics, Computer Science and Engineering, City University London, United Kingdom. He received his BE and Ph. D degrees from City University London in 1994 and 1999 respectively. From 1999 he worked at City University London as a Research Fellow. In August 2000 he moved to Logica as a Telecommunication Consultant. After a few years

in the industry, Prof. Rajarajan is now a Professor of Security Engineering. He is also the Programme Director for the Engineering with Management and entrepreneurship programme.

He is a senior member of IEEE, a member of IET and an associate member of the institute of information security professionals (IISP) and a member of Technical Programme Committees for PIERS 2010, eHealth 2010, SECURECOM2011, TrustBus 2011, Digital Economy 2012, IFIPTM 2012 and IFIP SEC 2012. He is also the General Chair of SECURECOMM 2011 in London. He also sits on the Editorial boards of Springer/ACM Journal on Wireless Networks, Elsevier Journal of Health Policy and Technology and Emerald Journal of Information Management and Computer Security.

Prof. Rajarajan leads the Information Security Group (ISG) at City University London which carries out research in the following domains:

Cyber Security, Wireless Security, Cloud Security & Trust, Identity Management and Access Control, Multi-factor Authentication, Lightweight Cryptography.



**Dr. Damodar Reddy Edla** is an Assistant Professor and Head of the Department, Computer Science and Engineering National Institute of Technology Goa. He received M.Sc degree from University of Hyderabad in 2006, M.Tech. and PhD degree in computer science and engineering from Indian School of Mines Dhanbad in 2009 and 2013 respectively. His research interest is Data Mining, Wireless Sensor Networks. He has

published more than 20 research papers articles in reputed journal and International conferences. He is senior member of IACSIT. He is also Editorial Board member of several International journals.



**Dr. Venkatanareshbabu Kuppili** is presently working as an Assistant Professor in the Computer Science and Engineering department at National Institute of Technology Goa. He has successfully graduated with M. Tech and PhD degrees from Indian Institute of Technology Delhi. He has also worked as a Senior Research Associate at Evalueserve Pvt Ltd.

His research interests include Big Data Analytics and Machine Learning. He has published several research publications in national and International conferences and journals.

## Course Coordinators

### Principal Coordinator

**Dr. Damodar Reddy Edla**

**Phone:** +91-9765127163

**E-mail:** dr.reddy@nitgoa.ac.in

### Co-Coordinator

**Dr. Venkatanareshbabu Kuppili**

**Phone:** +91-9049436708

**E-mail:** venkatanaresb@nitgoa.ac.in

.....  
<http://nitgoa.ac.in/gian>