



# Institute for Development and Research in Banking Technology

(Established by Reserve Bank of India)

Castle Hills, Road No. 1, Masab Tank, Hyderabad-57, India.

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e-Programme on

## INTRODUCTION TO CONTAINERS

September 21 – 24, 2021

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### Introduction

In the recent years, container-based virtualization for applications has gained immense popularity thanks to the success of technologies like Docker, LXD and Kubernetes, etc., are witnessing widespread adoption in the industry today. Container technologies have eliminated the feature parity between development and production environment by enabling developers to package applications and their dependencies as a single unit that can be run across diverse operating environments. Containerization is foundational for organizations wanting to build and leverage apps based on micro services where developers can focus on shipping features while DevOps platform teams focus on deployment and management.

### Objective

In this program, participants will learn fundamentals of containers and also learn how deploy application using container technologies like Docker and Kubernetes. Further, participants can also learn about container security.

### Contents

- Overview of Containers
- Docker Architecture
- Docker File creation
- Docker images creation and management
- Docker Hub
- Overview of Kubernetes
- Kubernetes Architecture
- Installing Kubernetes clusters
- Container Orchestration
- Deploying a Microservice on Container
- Container Security

### Mode of Teaching

Online teaching plus learning inputs through reading material, videos, webinars, assignments, quizzes, online interactions and clarifications. Each e-Programme will have four live webinars and course material will be made available in advance for study.

### Who Can Participate?

Officers of Banks / Financial Institutions / Insurance Sector who work in Development team including developers, testers, architects. Level: Scale I to IV

### End Use:

By end of this program, participants will have an excellent understanding of containers, how to create containers, deploy micro services and also container security.

### Programme Coordinator:

Dr. P. Syam Kumar, Assistant Professor, IDRBT; e-mail: [psyamkumar@idrbt.ac.in](mailto:psyamkumar@idrbt.ac.in)

### Fees:

#### **For Indian Participants**

- RRBs & Coop Banks: Rs. 8,850/-(Rs. 7,500/- + 18% GST)
- All Other Banks & FI's: Rs. 11,800/-(Rs. 10,000/- + 18% GST)

#### **For International participants**

- US \$ 175 (per participant, All inclusive)

### Bank Account Details for Remittance of Fees

The fees for this e-programme can be remitted to the following accounts:

#### **For Indian Participants**

Account Name : IDRBT  
Bank & Branch : Axis Bank Limited, Humayun Nagar, Mehdiapatnam, Hyderabad  
Account No. : 426010100018823  
MICR Code : 500211012  
IFSC Code : UTIB0000426

#### **For International participants**

Receiver's Correspondent Bank : JP Morgan Chase, New York, USA  
Swift Code : CHASUS33XXX  
Fed Wire Routing Number : ABA 021000021  
Beneficiary Bank & Branch : Axis Bank Ltd., Mumbai, India  
Account Number : 0011407376  
Beneficiary Bank Swift Code : AXISINBB

#### **Ultimate Beneficiary**

Account Name : IDRBT  
Customer ID : 030021632  
Account No. : 426010100018823  
Bank & Branch : Axis Bank Ltd., Jubilee Hills, Hyderabad, India. (AXISINBB030)

### Nominations

Banks may nominate any number of participants to these e-Programmes, which may be accepted on a first-cum-first-served basis. While nominating, please provide the details of the participants (Name, Designation, Bank, Mobile No/Phone No, email address, fees billing address, GST No. of the Bank).

Apart from nominations by banks, staff members of banks can self-nominate themselves for these e-Programmes by providing their employee credentials and paying the programme fee latest by **September 20, 2021**.

### How to Register

The nominations for these e-Programmes, and queries if any, may please be sent to [eprogram@idrbt.ac.in](mailto:eprogram@idrbt.ac.in). Please visit <https://www.idrbt.ac.in/eprogrammes> for more details about these programmes.

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### e-Programmes in September 2021

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Introduction to Authentication Techniques	06 – 09	Dr. M. V. N. K. Prasad/ Dr. N. P. Dhavale	<b>Sep 03, 2021</b>
2	Blockchain and Distributed Ledger Technology	06 – 09	Dr. N. V. Narendra Kumar	<b>Sep 03, 2021</b>
3	Social Media Analytics for Banking	13 – 16	Dr. V. Ravi	<b>Sep 09, 2021</b>
4	Introduction to Cyber Forensics	14 – 17	Dr. B. M. Mehtre	<b>Sep 13, 2021</b>
5	API Security and Governance	14 – 17	Dr. V. Radha	<b>Sep 13, 2021</b>
6	Introduction to Containers	21 – 24	Dr. P. Syam Kumar	<b>Sep 20, 2021</b>
7	RBI Guidelines on Cyber Security	21 – 24	Dr. Dipanjan Roy	<b>Sep 20, 2021</b>
8	Emerging Cyber Security Practices	27 – 30	Dr. Rajarshi Pal	<b>Sep 24, 2021</b>
9	Re-envisioning Digital Banking Systems	Sep 28 – Oct 01	Dr. Susmita Mandal	<b>Sep 27, 2021</b>

### e-Programmes in October 2021

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Awareness on Payment Systems Vision 2021	04 – 07	Dr. N. V. Narendra Kumar	<b>Oct 03, 2021</b>
2	Fundamentals of Open Source Technologies	04 – 07	Dr. Mridula Verma	<b>Oct 03, 2021</b>
3	AI/ML and Data Science for Banking	04 – 07	Dr. V. Ravi	<b>Oct 03, 2021</b>
4	Secure Coding Practices	05 – 08	Dr. V. Radha	<b>Oct 04, 2021</b>
5	Technologies for Financial Inclusion	05 – 08	Dr. M. V. N. K. Prasad	<b>Oct 04, 2021</b>
6	Threats to Digital Payment Ecosystem	11 – 14	Dr. Susmita Mandal	<b>Oct 10, 2021</b>
7	Workshop on Registration Authority Operations	11 – 14	Dr. N. P. Dhavale	<b>Oct 10, 2021</b>
8	Virtualization and Cloud Computing	25 – 28	Dr. P. Syam Kumar	<b>Oct 24, 2021</b>
9	Introduction to Governance, Risks and Compliance	25 – 28	Dr. Abhishek Kumar	<b>Oct 24, 2021</b>
10	AI/ML for Cyber Security	26 – 29	Dr. Rajarshi Pal	<b>Oct 25, 2021</b>
11	Insider Threats - Monitoring, Analysis and Detection	26 – 29	Dr. B. M. Mehtre	<b>Oct 25, 2021</b>

### e-Programmes in November 2021

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Blockchain and Distributed Ledger Technology	08 – 11	Dr. N. V. Narendra Kumar	<b>Nov 05, 2021</b>
2	Introduction to Authentication Techniques	09 – 12	Dr. M.V.N.K. Prasad & Dr. N.P. Dhavale	<b>Nov 08, 2021</b>
3	Secure Financial Infrastructure	09 – 12	Dr. Susmita Mandal	<b>Nov 08, 2021</b>
4	5G & Internet of Things (IoT) for Banks	15 – 18	Dr. V. N. Sastry	<b>Nov 12, 2021</b>
5	Introduction to Technologies for Customer Lifecycle Management	15 – 18	Dr. V. Ravi	<b>Nov 12, 2021</b>
6	Proactive Cyber Defence Strategies	16 – 19	Dr. Dipanjan Roy	<b>Nov 15, 2021</b>
7	Data Centre Management	22 – 25	Dr. P. Syam Kumar	<b>Nov 19, 2021</b>
8	Cyber Security for Remote Working Scenario	23 – 26	Dr. Rajarshi Pal	<b>Nov 22, 2021</b>
9	Dark Web Monitoring for Threat Intelligence	23 – 26	Dr. B. M. Mehtre	<b>Nov 22, 2021</b>
10	Emerging AI/ML Technologies	Nov 30 – Dec 03	Dr. Mridula Verma	<b>Nov 29, 2021</b>
11	Security Operations Centre	Nov 30 – Dec 03	Dr. V. Radha	<b>Nov 29, 2021</b>

### e-Programmes in December 2021

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Re-imagining Customer Engagement with Conversational Chatbots	06 – 09	Dr. Mridula Verma	<b>Dec 03, 2021</b>
2	Awareness on Payment Systems Vision 2021	06 – 09	Dr. N.V.Narendra Kumar	<b>Dec 03, 2021</b>
3	Explainable AI/ML for Banking	06 – 09	Dr. V. Ravi	<b>Dec 03, 2021</b>
4	Introduction to Hardware Security for Banks	07 – 10	Dr. Dipanjan Roy	<b>Dec 06, 2021</b>
5	Technologies for Financial Inclusion	14 – 17	Dr. M. V. N. K. Prasad	<b>Dec 13, 2021</b>
6	Security in Cloud Computing	14 – 17	Dr. P. Syam Kumar	<b>Dec 13, 2021</b>
7	Workshop on Registration Authority Operations	20 – 23	Dr. N. P. Dhavale	<b>Dec 17, 2021</b>
8	Privacy and Security Risks in Machine Learning	21 – 24	Dr. Rajarshi Pal	<b>Dec 20, 2021</b>
9	Targeted Attacks - Detecting in early stages	21 – 24	Dr. B. M. Mehtre	<b>Dec 20, 2021</b>
10	API Development	27 – 30	Dr. V. Radha	<b>Dec 24, 2021</b>
11	Basics of IT Vendor Management	28 – 31	Dr. Abhishek Thakur	<b>Dec 27, 2021</b>