



Institute for Development and Research in Banking Technology

(Established by Reserve Bank of India)

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

e-Programme on

SECURE CODING PRACTICES

March 22 – 25, 2022

Introduction

With lots of digitization around, banks are under stress to open APIs, develop new applications for customers as well as employees around their core banking. Building new apps around core banking without proper understanding of security vulnerabilities like SQL Injection, Remote Code Execution etc., might put the bank in higher risk zone. Whether the bank develops the application on its own or buys it, it is advisable for the banks to understand the security vulnerabilities arising from bad coding practices, how they manifest and what the remedial measures are. For majority of the attacks, bad programming is the sole source of problem. Security experts deploy remedial measures across the entire enterprise network stack right from Web application firewalls, to end-point security. It is like making the outer wall stronger to secure the weak inner applications. Majority of these solutions are not needed if the programs are written with security in mind.

Objectives

- To bring awareness about secure coding practices.
- To discuss the remedial measures

Contents

- Input Validation (SQL injection, XSS, command injection, file inclusion vulnerabilities)
- Authentication, Session management, and Access control
- Memory management and buffer overflow attack
- API Security Practices

We planned few virtual labs, which participants can access remotely and work. The virtual machines contain all the required s/w and tutorials to practice.

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?

Developers, Inspection officials as well as officials in IT and Information Security function involved in design, deployment and maintenance and security of information systems.

End Use:

Participants would be able to appreciate the coding vulnerabilities and act accordingly to strengthen the applications and overall IT environment in all its dimensions: Data, Applications and Technologies.

Programme Coordinator:

Dr. V. Radha, Associate Professor, IDRBT; e-mail: vradha@idrbt.ac.in

Fees:

For Indian Participants

- RRBs & Coop Banks: Rs. 11,800/- (Rs. 10,000/- + 18% GST)
- All Other Banks & Financial Institutions: Rs. 14,750/- (Rs. 12,500/- + 18% GST)

For International participants

- US \$ 220 (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 **March 21, 2022**.

How to Register

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

e-Programmes in March 2022

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Workshop on Registration Authority Operations	01 – 04	Dr. N. P. Dhavale	Feb 28, 2022
2	AI/ML and Data Science for Banks	01 – 04	Dr. V. Ravi	Feb 28, 2022
3	Proactive Cyber Defence Strategies	07 – 10	Dr. Dipanjan Roy	Mar 04, 2022
4	Introduction to Authentication Techniques	08 – 11	Dr. M. V. N. K. Prasad & Dr. N. P. Dhavale	Mar 07, 2022
5	Recent Cyber Crimes and Defences	08 – 11	Dr. Rajarshi Pal	Mar 07, 2022
6	Data Centre Management	14 – 17	Dr. P. Syam Kumar	Mar 11, 2022
7	Emerging AI/ML Technologies	14 – 17	Dr. Mridula Verma	Mar 11, 2022
8	Big Data Analytics through Elastic Map Reducer for Banks	21 – 24	Dr. V. Ravi	Mar 11, 2022
9	Mobile Banking, Social Media Banking and Mobile Security Testing	21 – 25	Dr. V. N. Sastry	Mar 18, 2022
10	Targeted Attacks - Detecting in Early Stages	22 – 25	Dr. B. M. Mehtre	Mar 21, 2022
11	Secure Coding Practices	22 – 25	Dr. V. Radha	Mar 21, 2022
12	Re-envisioning Digital Banking Systems	28 – 31	Dr. Susmita Mandal	Mar 25, 2022

e-Programmes in April 2022

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Distributed Ledger Technology and Banking Applications	04 – 07	Dr. N. V. Narendra Kumar	Apr 01, 2022
2	Technologies for Financial Inclusion	04 – 07	Dr. M.V.N.K. Prasad	Apr 01, 2022
3	Workshop on Registration Authority Operations	05 – 08	Dr. N. P. Dhavale	Apr 04, 2022
4	AI/ML for Cyber Security	05 – 08	Dr. Rajarshi Pal	Apr 04, 2022
5	Adversarial ML for Banks	18 – 21	Dr. V. Ravi	Apr 13, 2022
6	Smart Banking using AI and ML	18 – 21	Dr. Mridula Verma	Apr 13, 2022
7	Cyber Forensics for Cyber Defence - A Proactive Approach	19 – 22	Dr. B. M. Mehtre	Apr 18, 2022

8	API Development	19 – 22	Dr. V. Radha	Apr 18, 2022
9	Future of Innovative Smart Banking	25 – 28	Dr. Susmita Mandal	Apr 22, 2022
10	Security in Cloud Computing	26 – 29	Dr. P. Syam Kumar	Apr 25, 2022
11	Introduction to Hardware Security	26 – 29	Dr. Dipanjan Roy	Apr 25, 2022

e-Programmes in May 2022

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Re-imagining customer engagement with conversational Chatbots	09 – 12	Dr. Mridula Verma	May 06, 2022
2	Introduction to Governance, Risks and Compliance	10 – 13	Dr. Abhishek Kumar Thakur	May 09, 2022
3	Continuous Security Validation	10 – 13	Dr. V. Radha	May 09, 2022
4	Secure Financial Infrastructure	10 – 13	Dr. Susmita Mandal	May 09, 2022
5	Cyber Security for Remote Working Scenario	17 – 20	Dr. Rajarshi Pal	May 16, 2022
6	Proactive Cyber Defence Strategies	17 – 20	Dr. Dipanjan Roy	May 16, 2022
7	Dark Web Monitoring for Threat Intelligence	17 – 20	Dr. B. M. Mehtre	May 16, 2022
8	Introduction to Authentication Techniques	23 – 26	Dr. M.V.N.K. Prasad Dr. N.P.Dhavale	May 20, 2022
9	Explainable AI for Banks	24 – 27	Dr. V. Ravi	May 23, 2022
10	Big Data and Cloud	24 – 27	Dr. P. Syam Kumar	May 23, 2022

e-Programmes in June 2022

S. No.	Name of the e-Programme	Date	e-Programme Coordinator	Last Date for Nomination
1	Privacy Preserving Machine Learning for Banks	06 – 09	Dr. V. Ravi	June 03, 2022
2	Distributed Ledger Technology and Banking Applications	06 – 09	Dr. N. V. Narendra Kumar	June 03, 2022
3	5G Use Cases and IoT Applications for Banks	06 – 10	Dr. V. N. Sastry	June 03, 2022
4	Threats to Digital Payment Ecosystem	07 – 10	Dr. Susmita Mandal	June 06, 2022
5	Technologies for Financial Inclusion	07 – 10	Dr. M.V.N.K. Prasad	June 06, 2022
6	Emerging AI/ML Technologies	13 – 16	Dr. Mridula Verma	June 10, 2022
7	Workshop on Registration Authority Operations	14 – 17	Dr. N. P. Dhavale	June 13, 2022
8	Privacy and Security Risks in Machine Learning	14 – 17	Dr. Rajarshi Pal	June 13, 2022
9	RBI Guidelines on Cyber Security	20 – 23	Dr. Dipanjan Roy	June 17, 2022

10	Introduction to Containers	21 – 24	Dr. P. Syam Kumar	June 20, 2022
11	Targeted Attacks - Detecting in Early Stages	21 – 24	Dr. B. M. Mehtre	June 20, 2022
12	API Development	Jun 28 – Jul 01	Dr. V. Radha	June 27, 2022