

Technology Innovation Institute (TII), Abu Dhabi

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"Be weird. Be random. Be who you are. Because you never know who would love the person you hide."

# **Research Interests**

My research primarily centers on cryptography and information security, with a special emphasis on creating efficient protocols for problems in the area of Secure Multi-party Computation (MPC). My work revolves around designing and implementing practical MPC protocols, as well as delving into the realms of privacy-preserving machine learning and federated learning. I have actively engaged in a diverse range of cryptographic areas, including Multi-party Computation, Verifiable Secret Sharing, Oblivious Transfer, Byzantine Agreement, Broadcast, as well as cutting-edge domains like Privacy-Preserving Machine Learning and Federated Learning.

### **Education**

#### Indian Institute of Science (IISc)

Bengaluru, India

Ph. D. IN COMPUTER SCIENCE Sep. 2017 - Jul. 2021

Dissertation Area: Secure Multi-party Computation (MPC) & Privacy-Preserving Machine Learning (PPML)

- Advisor: Prof. Arpita Patra
- CGPA: 9 / 10 (First Class with Distinction)

#### Indian Institute of Science (IISc)

Bengaluru, India

M.Tech. (Research) in Computer Science

Aug. 2014 - Jun. 2017

- Dissertation Area: Secure Multi-party Computation (MPC)
- · Advisor: Prof. Arpita Patra
- CGPA: 6.83 / 8 (First Class with Distinction)

# College of Engineering, Trivandrum (CET)

Trivandrum, India

B.Tech in Computer Science and Engineering

Jul. 2010 - Apr. 2014

• CGPA: 8.81 / 10 (First Class with Distinction)

# **Professional Experience**

#### **Technology Innovation Institute (TII)**

Abu Dhabi, UAE

LEAD MPC RESEARCHER

Apr. 2025 - Present

SENIOR MPC RESEARCHER

May. 2023 - Mar. 2025

Associated with the The Cryptography Research Center (CRC).

# Technical University (TU) of Darmstadt

Darmstadt, Germany

POST-DOCTORAL RESEARCH IN COMPUTER SCIENCE

Oct. 2021 - Mar. 2023

- Area: Privacy-preserving Services On the Internet (PSOTI)

Nov. 2019

RESEARCH INTERN

– Research work under the joint guidance of Thomas Schneider and Arpita Patra.

· Host: Prof. Thomas Schneider at Cryptography and Privacy Engineering (ENCRYPTO) Research Group

#### Indian Institute of Science (IISc)

Bengaluru, India

RESEARCH ASSOCIATE

Aug. 2021 - Sep. 2021

· Host: Prof. Arpita Patra

#### **Amazon Development Centre**

Bengaluru, India Jul. 2013 - Aug. 2013

SOFTWARE DEVELOPMENT ENGINEER (SDE) INTERN

• Project: "Increase the registered and subscribed user base at Amazon" in the International Expansion (Junglee Traffic) Team.

# **Awards, Scholarships and Achievements**

- 1. Received Runner-Up Distinguished Paper Award at 2nd IEEE Conference on Secure and Trustworthy Machine Learning (IEEE SaTML'24).
- 2. Awarded commendation certificate for outstanding PhD thesis by Department of Computer Science and Automation at the Indian Institute of Science (IISc), Bangalore.
- 3. Nominated for the Schmidt Science Fellows 2022 program for post-doctoral research (one among a group of 350 highly accomplished candidates, nominated from 83 of the world's leading universities and institutes).
- 4. Represented country India in the "Window to the World" session at the 8th Heidelberg Laureate Forum.
- 5. Selected as one among 225 young researchers to participate in the 8th Heidelberg Laureate Forum.
- 6. Recipient of Google PhD Fellowship 2019 (one among 53 researchers around the globe).
- 7. Organiser of Secure Multi-Party Computation: Theory and Practice Workshop at Indian Institute of Science (IISc) from 19th to 22nd January, 2020.
- 8. Received travel grant to attend Privacy Preserving Machine Learning Workshop, CCS 2019, London.
- 9. Received travel grant to attend Workshop: Theory and Practice of Secure Multiparty Computation 2016, Aarhus University, Denmark.
- 10. Secured All India Rank of 807 with a score of 688 in GATE 2014 among (approximately) 1,55,190 students in India.
- 11. Ministry of Human Resource and Development (MHRD) Scholarship for Postgraduate education, India.
- 12. Best Outgoing student in Computer Science and Engineering (P Rathnaswamy Memorial Endowment) for the year 2014.
- 13. First prize in Coding Competition, CODESTORM, conducted by IEEE Computer Society (March 2013).
- 14. Received Ashok Leyland "ALL THE BEST" Scholarship for graduate studies, India (February 2011).
- 15. Recipient of Federal Bank Hormis Memorial Foundation Scholarship for graduate studies, India (2010-11).
- 16. Recipient of Indian Oil Education Scholarship for graduate education, India (2010-11).
- 17. Received Central Sector Scholarship by Department of Higher Education (MHRD) for graduate studies, India (2010).
- 18. Achieved a rank of 629 in Kerala Engineering Entrance (KEAM 2010) among (approximately) 100949 students.
- 19. Received Malayala Manorama Merit Scholarship (February 2008).
- 20. Received prize at CMS Math Prodigy Hunt 2009, organized by Centre for Research in Mathematics.
- 21. Participated in 20th Kerala Science Congress, Trivandrum (January 2008).
- 22. Participated in Youth Parliament Competition under the auspices of the Institute of Parliamentary Affairs, Government of Kerala.

# **Scientific Service**

- 1. Program Committee (PC) member for
  - 2026 PETS
  - · 2025 ACM CCS, PETS, IEEE SaTML, TPMPC, Latincrypt, Indocrypt
  - 2024 IEEE S&P, PETS, TPMPC, WPES (ACM CCS)
  - 2023 ACM CCS, CANS
  - 2022 CANS
- 2. Acted as external reviewer for
  - 2024 EUROCRYPT, CT-RSA, IEEE TDSC, IEEE TIFS
  - 2023 USENIX Security, CRYPTO
  - 2022 EUROCRYPT, ACM CCS, PETS, IEEE TDSC, ICDCN, PINS, IEEE TC
  - 2021 ACM CCS, PODC, ITC, CRYPTO
  - 2020 ASIACRYPT, IEEE TIFS
  - · 2019 CRYPTO, ASIACRYPT, TCC, PKC
  - 2018 EUROCRYPT, ASIACRYPT
  - 2017 ASIACRYPT, PKC
  - 2016 CRYPTO
- 3. Organiser of EECS Research Students Symposium 2017 at Indian Institute of Science (IISc), Bangalore, India.
- 4. Maintainer of https://mpc-deadlines.github.io.

# **Teaching Experience**

#### Technical University of Darmstadt (TUD)

CRYPROT: CRYPTOGRAPHIC PROTOCOLS (TEACHING ASSISTANT)

Darmstadt, Germany Summer Term 2022

- Instructor: Prof. Dr.-Ing. Thomas Schneider
- ENCRYPTO, Department of Computer Science, TUD.
- Conducted course exercises, exam preparation and evaluation.

#### **Indian Institute of Science (IISc)**

Bengaluru, India Jan. - Apr.'17, Aug. - Dec.'19

CSA E0 312 : Secure Computation (Teaching Assistant)

- Instructor: Dr. Arpita Patra
- Department of Computer Science and Automation (CSA), IISc.
- Gave course lectures, mentoring in course projects, evaluation.

#### Indian Institute of Science (IISc)

Bengaluru, India

CSA E0 235: CRYPTOGRAPHY (TEACHING ASSISTANT)

Jan. - Apr.'16, Aug. - Dec.'19

- Instructor: Dr. Arpita Patra
- Department of Computer Science and Automation (CSA), IISc.
- · Conducted weekly tutorial sessions discussing questions from the areas covered in the course, evaluation of exam sheets.

#### Indian Institute of Science (IISc)

Bengaluru, India

UG E101: ALGORITHMS AND PROGRAMMING (TEACHING ASSISTANT)

Aug. - Dec.'18

- Instructors: Satish Govindarajan and Viraj Kumar
- Undergraduate (UG) Department, IISc.
- · Conducted weekly coding tutorial sessions, evaluation of assignments.

# **Skills**

**Programming** C/C++, Java, Javascript, Python, PyTorch

**DevOps** AWS, Docker, Jenkins, Jira, SonarQube

DBMS Oracle, SQL

Web HTML5, CSS3, jQuery, JSP Tools NetBeans, Eclipse, VS Code, ET<sub>F</sub>X

# Personal Data

**Born** 24th April 1992 in Kerala, India

Citizenship Indian **Marital Status** 

> Languages Malayalam (mother tongue), English, Hindi, Tamil

**Interests** Photography, Badminton, Cycling

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# **Research Profile**

# Scientific Publications\_

#### **THESIS**

- 1. Ajith Suresh. *MPCLeague: Robust MPC Platform for Privacy-Preserving Machine Learning*. PhD Thesis, 2021. Under the supervision of Prof. Arpita Patra. Indian Institute of Science (IISc), Bangalore. [PDF]
- 2. Ajith Suresh. Fast Actively Secure OT Extension for Short Secrets. Master Thesis, 2017. Under the supervision of Prof. Arpita Patra. Indian Institute of Science (IISc), Bangalore. [PDF]
- 3. Ajith Suresh. *Proximity-based Sentiment Analysis with Contextual Phrase Polarity*. Bachelor Thesis, 2014. College of Engineering (CET), Trivandrum.

### BOOKS ([B]) & BOOK CHAPTERS ([BC])

1. [BC] Najwa Aaraj, Abdelrahaman Aly, Alvaro Garcia-Banda, Chiara Marcolla, Victor Sucasas and Ajith Suresh. Privacy-Preserving Machine Learning for Massive IoT Deployments.

In Security and Privacy for 6G Massive IoT

### CONFERENCES ([C]) & JOURNALS ([J])

Publications in cryptography usually order authors alphabetically (using surnames) and conferences ([C]) are more common than journals ([J]). Workshops and affiliated events with proceedings ([W]) are marked with ‡.

- 1. Christopher Harth-Kitzerow, Ajith Suresh and Georg Carle.

  Truncation Untangled: Scaling Fixed-Point Arithmetic for Privacy-Preserving Machine Learning to Large Models and Datasets.

  In 25th Privacy Enhancing Technologies Symposium (PETS'25)(CORE rank- A)
- 2. Soumyadyuti Ghosh, Boyapally Harishma, Ajith Suresh, Arpita Patra, Soumyajit Dey, and Debdeep Mukhopadhyay. Pay What You Spend! Privacy-Aware Real-Time Pricing with High Precision IEEE 754 Floating Point Division. In 20th ACM ASIA Conference on Computer and Communications Security (ASIACCS'25) (CORE rank- A)
- 3. [J] Daniel Günther, Marco Holz, Benjamin Judkewitz, Helen Möllering, Benny Pinkas, Thomas Schneider and Ajith Suresh. *Privacy-Preserving Epidemiological Modeling on Mobile Graphs*.

  In IEEE Transactions on Information Forensics & Security (IEEE TIFS'25) (CORE rank- A) [2]
- 4. [J] Najwa Aaraj, Abdelrahaman Aly, Tim Güneysu, Chiara Marcolla, Johannes Mono, Rogerio Paludo, Iván Santos-González, Mireia Scholz, Eduardo Soria-Vazquez, Victor Sucasas and Ajith Suresh.

  FANNG-MPC: Framework for Artificial Neural Networks and Generic MPC.

  In IACR Transactions on Cryptographic Hardware and Embedded Systems (CHES'25)(CORE rank- A)
- 5. [J] Christopher Harth-Kitzerow, Ajith Suresh, Yonqing Wang, Hossein Yalame, Georg Carle and Murali Annavaram. High-Throughput Secure Multiparty Computation with an Honest Majority in Various Network Settings. In 25th Privacy Enhancing Technologies Symposium (PETS'25)(CORE rank- A) [2] [3]
- 6. [C] Yaniv Ben-Itzhak, Helen Möllering, Benny Pinkas, Thomas Schneider, Ajith Suresh, Oleksandr Tkachenko, Shay Vargaftik, Christian Weinert, Hossein Yalame and Avishay Yanai.

  ScionFL: Efficient and Robust Secure Quantized Aggregation. (Runner-Up Distinguished Paper Award)
  In 2nd IEEE Conference on Secure and Trustworthy Machine Learning (IEEE SaTML'24) [A]
- 7. [J] Vinod Ganapathy, Eikansh Gupta, Arpita Patra, Gokulnath Pillai and Ajith Suresh. Privadome: Delivery Drones and Citizen Privacy.
  In 24th Privacy Enhancing Technologies Symposium (PETS'24) (CORE rank- A)
- 8. [C] Andreas Brüggemann, Oliver Schick, Thomas Schneider, Ajith Suresh and Hossein Yalame. Don't Eject the Impostor: Fast Three-Party Computation With a Known Cheater. In 45th IEEE Symposium on Security and Privacy (IEEE S&P'24) (CORE rank- A\*)
- 9. [C] Gowri R Chandran, Raine Nieminen, Thomas Schneider and Ajith Suresh.

  \*PrivMail: A Privacy-Preserving Framework for Secure Emails.

  In 28th European Symposium on Research in Computer Security (ESORICS'23) (CORE rank- A)
- 10. [J] Nishat Koti, Shravani Patil, Arpita Patra and Ajith Suresh. MPClan: Protocol Suite for Privacy-Conscious Computations. In Journal of Cryptology (JoC'23) (CORE rank- A\*) [1]

- 11. [C] Andreas Brüggemann, Robin Hundt, Thomas Schneider, Ajith Suresh and Hossein Yalame. FLUTE: Fast and Secure Lookup Table Evaluations.

  In 44th IEEE Symposium on Security and Privacy (IEEE S&P'23) (CORE rank- A\*) [ ]
- 12. [W] Till Gehlhar, Felix Marx, Thomas Schneider, Ajith Suresh, Tobias Wehrle and Hossein Yalame. SafeFL: MPC-friendly framework for Private and Robust Federated Learning.

  In 6th Deep Learning Security and Privacy Workshop (DLSP'23) [2]
- 13. [J] Thomas Schneider, Ajith Suresh and Hossein Yalame.

  Comments on "Privacy-Enhanced Federated Learning Against Poisoning Adversaries".

  In IEEE Transactions on Information Forensics & Security (IEEE TIFS'23) (CORE rank- A),
  In IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP'23)

Research work(s) published during PhD. I am the primary author for publications marked with †.

- 14. [C] Nishat Koti, Arpita Patra, Rahul Rachuri and Ajith Suresh.

  Tetrad: Actively Secure 4PC for Secure Training and Inference.†

  In 29th Network and Distributed System Security Symposium (NDSS'22) (CORE rank- A\*)
- 15. [C] Arpita Patra, Thomas Schneider, Ajith Suresh and Hossein Yalame.

  SynCirc: Efficient Synthesis of Depth-Optimized Circuits for Secure Computation.

  In IEEE International Symposium on Hardware Oriented Security and Trust (HOST'21)
- 16. [C] Nishat Koti, Mahak Pancholi, Arpita Patra and Ajith Suresh.

  \*\*SWIFT: Super-fast and Robust Privacy-Preserving Machine Learning.†\*

  In 30th USENIX Security Symposium (USENIX'21) (CORE rank- A\*) [2] [6]
- 17. [C] Patra, Thomas Schneider, Ajith Suresh and Hossein Yalame.

  \*ABY2.0: Improved Mixed-Protocol Secure Two-Party Computation.†

  In 30th USENIX Security Symposium (USENIX'21) (CORE rank- A\*) [A]
- 18. [C] Arpita Patra and Ajith Suresh.

  \*\*BLAZE: Blazing Fast Privacy-Preserving Machine Learning.†\*

  In 27th Network and Distributed System Security Symposium (NDSS'20) (CORE rank- A\*) [2] [6]
- 19. [C] Harsh Chaudhari, Rahul Rachuri and Ajith Suresh.

  \*\*Trident: Efficient 4PC Framework for Privacy Preserving Machine Learning.†\*

  In 27th Network and Distributed System Security Symposium (NDSS'20) (CORE rank- A\*)
- 20. [J] Megha Byali, Harsh Chaudhari, Arpita Patra and Ajith Suresh.

  FLASH: Fast and Robust Framework for Privacy-preserving Machine Learning.

  In 20th Privacy Enhancing Technologies Symposium (PETS'20) (CORE rank- A)
- 21. [C] Harsh Chaudhari, Ashish Choudhury, Arpita Patra and Ajith Suresh.

  ASTRA: High Throughput 3PC over Rings with Application to Secure Prediction.†

  In ACM Conference on Cloud Computing Security Workshop (ACM CCSW'19)

Research work(s) published during M.Tech. (Research). I am the primary author for publications marked with †.

22. [C] Arpita Patra, Pratik Sarkar and Ajith Suresh.

Fast Actively Secure OT Extension for Short Secrets.†

In 24th Network and Distributed System Security Symposium (NDSS'17) (CORE rank- A\*)

#### Workshops, Symposiums & Posters

- Abdelrahaman Aly, Sri Harsha Gajavalli, Saurav Pawar, Eduardo Soria-Vazquez, Victor Sucasas and Ajith Suresh. PetalGuard: Private Federated Learning Framework for Large Language Models. In Flower Al Summit'25
- 2. Christopher Harth-Kitzerow, Ajith Suresh, Yonqing Wang, Hossein Yalame, Georg Carle and Murali Annavaram. High-Throughput Secure Multiparty Computation with an Honest Majority in Various Network Settings. In TPMPC'25 (Contibuted Talk) [4]
- 3. Soumyadyuti Ghosh, Boyapally Harishma, Ajith Suresh, Arpita Patra, Soumyajit Dey, and Debdeep Mukhopadhyay. *Stable and Accurate Real-Time Pricing in Smart Grids*. In TPMPC'25 (Contibuted Talk)
- 4. Andreas Brüggemann, Oliver Schick, Thomas Schneider, Ajith Suresh and Hossein Yalame. Don't Eject the Impostor - Honest-Majority MPC With Fixed Malicious Parties. In TPMPC'25 (Contibuted Talk)

5. Najwa Aaraj, Abdelrahaman Aly, Tim Güneysu, Chiara Marcolla, Johannes Mono, Rogerio Paludo, Iván Santos-González, Mireia Scholz, Eduardo Soria-Vazquez, Victor Sucasas and Ajith Suresh.

FANNG-MPC: Framework for Artificial Neural Networks and Generic MPC.

In TPMPC'24 (Contibuted Talk) [ ] [ ]

6. Andreas Brüggemann, Thomas Schneider, Ajith Suresh and Hossein Yalame.

*Is Everyone Equally Trustworthy in Practice? (Short Talk).* 

In IEEE S&P'23 (Short Talk)

7. Gowri R Chandran, Raine Nieminen, Thomas Schneider and Ajith Suresh.

PrivMail: A Privacy-Preserving Framework for Secure Emails (Short Talk).

In IEEE S&P'23 (Short Talk)

8. Andreas Brüggemann, Thomas Schneider, Ajith Suresh and Hossein Yalame.

Efficient Three-Party Shuffling Using Precomputation.

In ACM CCS'22 (Poster) [2]

9. Daniel Günther, Marco Holz, Benjamin Judkewitz, Helen Möllering, Benny Pinkas, Thomas Schneider and Ajith Suresh. *Privacy-Preserving Epidemiological Modeling on Mobile Graphs*.

In ACM CCS'22 (Poster) [2]

10. Nishat Koti, Shravani Patil, Arpita Patra and Ajith Suresh.

MPClan: Protocol Suite for Privacy-Conscious Computations.

In ACM CCS'22 (Poster) [2], In NDSS'22 (Poster) [2]

11. Ajith Suresh.

MPCLeague: Robust MPC Platform for Privacy-Preserving Machine Learning.

In Doctoral Symposium (AIMLSystems'22) [PDF]

12. Nishat Koti, Arpita Patra, Rahul Rachuri and Ajith Suresh.

Tetrad: Actively Secure 4PC for Secure Training and Inference.

In PPML'21 (ACM CCS'21)

13. Arpita Patra, Thomas Schneider, Ajith Suresh and Hossein Yalame.

ABY2.0: Improved Mixed-Protocol Secure Two-Party Computation.

In PriML'21 (NeurIPS'21), In PPML'21 (ACM CCS'21), In PPML'21 (CRYPTO'21)

14. Nishat Koti, Arpita Patra and Ajith Suresh.

MPCLeague: Robust and Efficient Mixed-protocol Framework for 4-party Computation.

In IEEE S&P'21 (Poster), In DPML'21 (ICLR'21) [2]

15. Nishat Koti, Mahak Pancholi, Arpita Patra and Ajith Suresh.

SWIFT: Super-fast and Robust Privacy-Preserving Machine Learning.

In ARCS'22 (Symposium), In DPML'21 (ICLR'21), In PriML/PPML'20 (NeurIPS'20)

16. Harsh Chaudhari, Ashish Choudhury, Arpita Patra and Ajith Suresh.

ASTRA: High Throughput 3PC over Rings with Application to Secure Prediction.

In PPML'19 (ACM CCS'19)

#### PREPRINTS & MANUSCRIPTS

1. Felix Marx, Thomas Schneider, Ajith Suresh, Tobias Wehrle, Christian Weinert and Hossein Yalame.

WW-FL: Secure and Private Large-Scale Federated Learning.

Under Submission [2]

2. Arpita Patra, Joachim Schmidt, Thomas Schneider, Ajith Suresh and Hossein Yalame.

SynCirc: Efficient Synthesis of Depth-Optimized Circuits from High-Level Languages.

**Under Submission** 

# **Invited Talks**

- 1. March 2025. MPC-based PPML: Advancing Privacy-Preserving Machine Learning. MOZAIK Winter School. Leuven, Belgium.
- 2. March 2025. *High-Throughput Secure Multiparty Computation with an Honest Majority in Various Network Settings*. COSIC Seminar Series. Leuven, Belgium.
- 3. November 2024. Revitalizing Privacy-Preserving Machine Learning: Introducing FANNG-MPC for Actively Secure MLaaS. CarbyneStackCon'24 (CSC'24). Hybrid Event.
- 4. June 2021. SWIFT: Super-fast and Robust Privacy-Preserving Machine Learning. CNI Networks Seminar Series, Centre for Networked Intelligence, Virtual Event, India.
- 5. July 2020. MPC MEETS ML: Efficient Privacy Preserving Machine Learning Techniques. International Symposium on Current Trends in Research and Innovation (ISCTRI'20), Virtual Event, india.
- 6. November 2019. ASTRA: High Throughput 3PC over Rings with Application to Secure Prediction. TU Darmstadt, Germany.

# Other Talks and Presentations

- 1. June 2024. Revitalizing Privacy-Preserving Machine Learning: Introducing FANNG-MPC for Actively Secure MLaaS. 10. Theory and Practice of Multi-Party Computation Workshop (TPMPC 2024). Darmstadt, Germany.
- 2. April 2024. *ScionFL: Efficient and Robust Secure Quantized Aggregation*. 2nd IEEE Conference on Secure and Trustworthy Machine Learning (IEEE SaTML'24). Toronto, Canada.
- 3. October 2022. MPCLeague: Robust MPC Platform for Privacy-Preserving Machine Learning. Second International Conference on AI-ML Systems (AIMLSystems'22). Bangalore (Hybrid Event), India.
- 4. April 2022. *Tetrad: Actively Secure 4PC for Secure Training and Inference*. The Network and Distributed System Security Symposium (NDSS) 2022, Hybrid Event.
- 5. August 2021. SWIFT: Super-fast and Robust Privacy-Preserving Machine Learning. 30th USENIX Security Symposium, Virtual Event.
- 6. May 2021. MPC for small population with applications to Privacy-Preserving Machine Learning. EECS Research Students Symposium 2021, Virtual Event, India.
- 7. May 2021. MPCLeague: Robust and Efficient Mixed-protocol Framework for 4-party Computation. Distributed and Private Machine Learning (DPML), ICLR Workshop 2021, Virtual Event.
- 8. February 2021. ABY2.0: Improved Mixed-Protocol Secure Two-Party Computation. 15th Academic Research and Careers for Students Symposium (ARCS) 2021, Virtual Event, India.
- 9. February 2021. *BLAZE: Blazing Fast Privacy-Preserving Machine Learning*. 15th Academic Research and Careers for Students Symposium (ARCS) 2021, Virtual Event, India.
- July 2020. MPC MEETS ML: Efficient Privacy Preserving Machine Learning Techniques. EECS Research Students Symposium 2020, Virtual Event, India.
- 11. February 2020. *BLAZE: Blazing Fast Privacy-Preserving Machine Learning*. The Network and Distributed System Security Symposium (NDSS) 2020, San Diego, USA.
- 12. February 2020. *Trident: Efficient 4PC Framework for Privacy Preserving Machine Learning*. The Network and Distributed System Security Symposium (NDSS) 2020, San Diego, USA.
- 13. February 2020. ASTRA: High Throughput 3PC over Rings with Application to Secure Prediction. 14th Inter-Research-Institute Student Seminar in Computer Science (IRISS) 2020, IIT Gandhinagar.
- 14. January 2020. MPC MEETS ML: Efficient Privacy Preserving Machine Learning Techniques. Hitachi-IISc Project Review, IISc, India.
- 15. January 2020. MPC MEETS ML: Efficient Privacy Preserving Machine Learning Techniques. Secure Multi-Party Computation: Theory and Practice Workshop, IISc, India.
- 16. March 2019. MPC MEETS ML: High Throughput Secure ML Prediction. Amazon Project Review, IISc, India.
- 17. August 2018. Cryptography Basics. QIP STC on Foundations of Cryptography, IISc, India.
- 18. April 2017. Fast Actively Secure OT Extension for Short Secrets. EECS Symposium, IISc, India.
- 19. February 2017. Fast Actively Secure OT Extension for Short Secrets. The Network and Distributed System Security Symposium (NDSS) 2017, San Diego, USA.

- 20. February 2016. *Oblivious Transfer (OT) and OT Extensions*. Workshops on Cryptography, organized as a part of Information Security Education and Awareness Project Phase II, IISc.
- 21. February 2016. *Two party computation (GMW construction)*. Workshops on Cryptography, organized as a part of Information Security Education and Awareness Project Phase II, IISc.
- 22. February 2016. *Message Authentication Codes*. Workshops on Cryptography, organized as a part of Information Security Education and Awareness Project Phase II, IISc.
- 23. January 2016. *Efficient Actively Secure Oblivious Transfer Extension*. 10th Inter-Research-Institute Student Seminar in Computer Science (IRISS) 2016, Technopark, Trivandrum, Kerala.

# **Research Events**

- 1. March 2025. MOZAIK Winter School. Leuven, Belgium.
- 2. November 2024. CarbyneStackCon '24 (CSC24). Renningen (Hybrid Event), Germany
- 3. June 2024. 10. Theory and Practice of Multi-Party Computation Workshop (TPMPC 2024). Darmstadt, Germany.
- 4. April 2024. 2nd IEEE Conference on Secure and Trustworthy Machine Learning (IEEE SaTML'24). Toronto, Canada.
- 5. November 2022. The 29th ACM Conference on Computer and Communications Security (CCS). Los Angeles, U.S.A.
- 6. October 2022. Second International Conference on Al-ML Systems (AIMLSystems'22). Bangalore (Virtual Event), India.
- 7. June 2022. Theory and Practice of Multi-Party Computation Workshop (TPMPC). Aarhus, Denmark.
- 8. April 2022. The Network and Distributed System Security Symposium (NDSS). San Diego (Virtual Event), California.
- 9. August 2021. 8th Heidelberg Laureate Forum. Heidelberg (Virtual Event), Germany.
- 10. August 2021. The 30th USENIX Security Symposium (USENIX) 2021. (Virtual Event).
- 11. May 2021. EECS Research Students Symposium 2021. Indian Institute of Science (IISc), Bangalore (Virtual Event), India.
- 12. May 2021. Distributed and Private Machine Learning (DPML), ICLR Workshop 2021. (Virtual Event).
- 13. February 2021. 15th Academic Research and Careers for Students Symposium (ARCS) 2021. PSG College of Technology, Coimbatore (Virtual Event), India.
- 14. July 2020. EECS Research Students Symposium 2020. Indian Institute of Science (IISc), Bangalore (Virtual Event), India.
- 15. July 2020. International Symposium on Current Trends in Research and Innovation (ISCTRI'20). CHRIST University, Pune Lavasa Campus (Virtual Event), India.
- 16. February 2020. The 27th Network and Distributed System Security Symposium (NDSS) 2020. San Diego, USA.
- 17. February 2020. 14th Inter-Research-Institute Student Seminar in Computer Science (IRISS) 2020. Indian Institute of Technology (IIT) Gandhinagar, India.
- 18. January 2020. Secure Multi-Party Computation: Theory and Practice 2020. Indian Institute of Science (IISc), Bangalore, India.
- 19. November 2019. The 26th ACM Conference on Computer and Communications Security (CCS) 2019. London, United Kingdom.
- 20. December 2017. 18th International Conference on Cryptology (INDOCRYPT) 2017. The Institute of Mathematical Sciences (IMSc), Chennai, India.
- 21. March 2017. NMI Workshop on Secure Multiparty Computation. Indian Institute of Technology (IIT), Bomaby, India.
- 22. February 2017. The 24th Network and Distributed System Security Symposium (NDSS) 2017. San Diego, USA.
- 23. June 2016. Theory and Practice of Secure Multiparty Computation Workshop (TPMPC) 2016. Aarhus university, Denmark.
- 24. January 2016. 10th Inter-Research-Institute Student Seminar in Computer Science (IRISS) 2016. Trivandrum, India.