Devashish Gosain

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▬▬▬ Current Employment

2024– **Assistant Professor**, *CSE*, IIT Bombay, India.

▬▬▬ Past Employment

2023–2024 **Assistant Professor**, *BITS Pilani Goa Campus*, India.

2022–2023 **Postdoctoral Researcher**, *COSIC, KU Leuven*, Belgium, (hosted by Claudia Diaz).

2020–2022 **Postdoctoral Researcher**, *Max Planck Institute of Informatics*, Germany, (hosted by Anja Feldmann).

▬▬▬ Education

2015–2020 **PhD (CSE)**, *IIIT-Delhi*, India.

2013-2015 **Master of Technology (CSE)**, *Birla Institute of Technology*, Ranchi, India.

2008-2012 **Bachelor of Technology (CSE)**, *Guru Gobind Singh Indraprastha University*, Delhi, India.

▬▬▬ Research Interests

Networks, Privacy, Anonymity, Internet measurements.

▬▬▬ Selected Publications

2026 **There is No War in Ba Sing Se: A Global Analysis of Content Moderation in Large Language Models**, *accepted for publication in the proceedings of Network and Distributed Security Symposium (**NDSS**)*.
Authors: Friedemann Lipphardt, Moonis Ali, Martin Banzer, Anja Feldmann, **Devashish Gosain**

2026 **Is Misinformation More Open? A Study of robots.txt Gatekeeping on the Web**, *accepted for publication in the proceedings of The ACM Web Conference (**WWW**)*.
Authors: Nicolas Steinacker-Olsztyn, **Devashish Gosain**, Ha Dao

2026 **"Nobody should control the end user": Exploring Privacy Perspectives of Indian Internet Users in Light of DPDPA**, *accepted for publication in proceedings of Computer and Communications Security (**AsiaCCS**)*.
Authors: Sana Athar, **Devashish Gosain**, Anja Feldmann, Mannat Kaur, Ha Dao

2026 **Dual Standards: Examining Content Moderation Disparities Between API and WebUI Interfaces in Large Language Models**, *accepted for publication in the proceedings of Free and Open Comunications over Internet co-located with PoPETS (**FOCI**)*.
Authors: Friedemann Lipphardt, Moonis Ali, Martin Banzer, Anja Feldmann, **Devashish Gosain**

2026 **Clicking into Exposure: Uncovering Privacy Risks of Google Click Identifier in YouTube Ads**, *accepted for publication in proceedings of Privacy Enhancing Technologies (**PoPETS**)*.
Authors: Ha Dao, Abhishek Shinde, Sana Athar, **Devashish Gosain**

2025 **Can You Hear Me? A First Study of VoIP Censorship Techniques in Saudi Arabia and the UAE**, *published in the proceedings of IEEE European Symposium on Security and Privacy (**EuroS&P**)* .
Authors: Friedemann Lipphardt, Anja Feldmann, **Devashish Gosain**

2025 **Intractable Cookie Crumbs: Unveiling the Nexus of Stateful Banner Interaction and Tracking Cookies**, *in proceedings of Privacy Enhancing Technologies (**PoPETS**)*.
Authors: Ali Rasaii, Ha Dao, Anja Feldmann, M Javid, Oliver Gasser, **Devashish Gosain**

2024 **Out in the Open: On the Implementation of Mobile App Filtering in India**, *in proceedings of Passive and Active Measurements (**PAM**)*.
Authors: **Devashish Gosain**, Kartikey Singh, Rishi Sharma, Jitin S, Sambuddho Chakravarty

2023 **Thou Shalt Not Reject: Analyzing Accept-Or-Pay Cookie Banners on the Web**, *in proceedings of Internet Measurement Conference (**IMC**)*.
Authors:Ali Rasaii, **Devashish Gosain** and Oliver Gasser

2023 **PTPerf: On the performance evaluation of Tor Pluggable Transports**, *accepted for publication in proceedings of Internet Measurement Conference (**IMC**)*.
Authors: Zeya Umayya, Dhruv Malik, **Devashish Gosain**, Piyush Kumar Sharma

2023 **Poster: Hades: Practical Partitioning Attack on Cryptocurrencies**, *in proceedings of the conference on Network and Distributed System Security (**NDSS**)*.
Authors: Vinay Shetty, Piyush Kumar Sharma, **Devashish Gosain**

2023 **Cryptographic Deniability: A Multi-perspective Study of User Perceptions and Expectations**, *in proceedings of Usenix Security (**Usenix Security**)*.
Authors: Tarun Kumar Yadav, **Devashish Gosain**, Kent Seamons

2023 **DeeP4R: Deep Packet Inspection in P4 using Packet Recirculation**, *in proceedings of Conference of International Conference on Computer Communications (**INFOCOM**)*.
Authors: Sahil Gupta, **Devashish Gosain**, M Kwon, HB Acharya

2023 **On the Anonymity of Peer-To-Peer Network Anonymity Schemes Used by Cryptocurrencies**, *in proceedings of Conference on Network and Distributed Security Symposium (**NDSS**)*.
Authors: Piyush Kumar Sharma, **Devashish Gosain**, Claudia Diaz

2023 **Exploring the Cookieverse: A Multi-Perspective Analysis of Web Cookies**, *in proceedings of Conference on Passive and Active Network Measurements (**PAM**)*.
Authors: Ali Rasaii, Shivani Singh, **Devashish Gosain** and Oliver Gasser

2022 **Automatic Detection of Fake Key Attacks in Secure Messaging**, *in proceedings of Conference on Computer and Communications Security (**CCS**)*.
Authors: Tarun Kumar Yadav, **Devashish Gosain**, Amir Herzberg, Daniel Zappala, Kent Seamons

2021 **MiXiM: Mixnet design decisions and empirical evaluation**, *in proceedings of Workshop on Privacy in the Electronic Society (**WPES**)*.
Authors: Iness Ben Guirat, **Devashish Gosain**, Claudia Diaz

2021 **Simple Deep Packet Inspection with P4**, *demo paper in proceedings of International Conference on Network Protocols (**ICNP**).*
Authors: Sahil Gupta, **Devashish Gosain**, G Grigoryan, M Kwon, HB Acharya

2021 **Telemetron: Measuring Network Capacity Between Off-Path Remote Hosts**, *in proceedings of Local Computer Networks (**LCN**).*
Authors: **Devashish Gosain**, Aishwarya Jaiswal, H. B. Acharya, Sambuddho Chakravarty

2021 **Camoufler: Accessing The Censored Web By Utilizing Instant Messaging Channels**, *in proceedings of ASIA Conference on Computer and Communications Security (**AsiaCCS**).*
Authors: Piyush Kumar Sharma, **Devashish Gosain**, Sambuddho Chakravarty

2021 **Too Close for Comfort: Morasses of (Anti-)Censorship in the Era of CDNs**, *in proceedings of Privacy Enhancing Technologies (**PoPETS**).*
Authors: **Devashish Gosain**, Mayank Mohindra, Sambuddho Chakravarty

2020 **Maginot Lines and Tourniquets: On the Defendability of National Cyberspace**, *in proceedings of Local Computer Networks Symposium (**LCN**).*
Authors: **Devashish Gosain**, Madhur Rawat, Piyush Kumar Sharma, H.B. Acharya

2020 **SiegeBreaker: An SDN Based Practical Decoy Routing System**, *in proceedings of Privacy Enhancing Technologies (**PoPETS**).*
Authors: Piyush Kumar Sharma, **Devashish Gosain**, Himanshu Sagar, Chaitanya Kumar, Aneesh Dogra, Vinayak Naik, H.B. Acharya, Sambuddho Chakravarty

2019 **CAMP: cluster aided multi-path routing protocol for wireless sensor networks**, *in Wireless Networks, Springer.*
Authors: Mohit Sajwan, **Devashish Gosain**, Ajay. K. Sharma

2018 **Where The Light Gets In: Analyzing Web Filtering Mechanisms in India**, *in proceedings of Internet Measurement Conference (**IMC**).*
Authors: Tarun Kumar Yadav*, Akshat Sinha*, **Devashish Gosain***, Piyush Sharma, Sambuddho Chakravarty. (*All authors have equal contributions.)

2018 **Hybrid energy-efficient multi-path routing for wireless sensor networks**, *in Journal of Computers and Electrical Engineering, Elsevier.*
Authors: Mohit Sajwan, **Devashish Gosain**, Ajay. K. Sharma

2017 **The Devil's in The Details: Placing Decoy Routers in the Internet**, *in proceedings of Annual Computer Security Applications Conference (**ACSAC**).*
Authors: **Devashish Gosain**, Anshika Aggarwal, H. B. Acharya and Sambuddho Chakravarty

2017 **Mending Wall: On the Implementation of Censorship in India (Best Student Paper Award)**, *in proceedings of EAI International Conference on Security and Privacy in Communication Networks (**SECURECOMM**).*
Authors: **Devashish Gosain**, Anshika Aggarwal, Sahil Shekhawat, H. B. Acharya and Sambuddho Chakravarty

2017 **Few Throats to Choke: On the Current Structure of the Internet**, *in proceedings of Local Computer Networks (**LCN**).*
Authors: H. B. Acharya*, Sambuddho Chakravarty* and **Devashish Gosain***. (*All authors have equal contributions.)

2017 **DSERR: Delay Sensitive Energy Efficient Reliable Routing Algorithm for wireless sensor networks**, *in Wireless Personal Communication (**WPC**), Springer.*
Authors: **Devashish Gosain**, Itu Snigdh, Mohit Sajwan

2016	**Analysis of scalability for routing protocols in wireless sensor networks**, *Optik-International Journal for Light and Electron Optics, Elsevier.* Authors: **Devashish Gosain**, Itu Snigdh

Teaching

Spring, 2025	**Computer Networks (M)**, *IIT Bombay.*
Fall, 2024	**Privacy Enhancing Technologies**, *IIT Bombay.*
Spring, 2024	**Privacy Enhancing Technologies**, *IIT Bombay.*
2023	**Computer Networks**, *BITS Goa.*
2023	**Information Security**, *BITS Goa.*
2023	**Lecturer of Advanced Privacy Technologies at KU Leuven**.
2022	**Teaching Assistant**, *KU Leuven.* Privacy and Big Data
2022	**Teaching Assistant**, *KU Leuven.* Privacy Technologies
2022	**Co-Lecturer of Data Networks course at Saarland University** , *(with Anja Feldmann, Oliver Gasser, Yiting Xia and Jialong Li).*
2021	**Co-Lecturer of Data Networks course at Saarland University** , *(with Anja Feldmann, Oliver Gasser, and Savvas Zannettou).*
2015 - 2020	**Teaching Assistant**, *IIIT-Delhi.* Secure Coding, Network Security, Software Defined Networks, Scientific Communication, Security Engineering

Research Internships

Sept. 2019 - Dec. 2019	**Visiting Scholar**, *Brigham Young University*, Utah, USA. **Automatic Detection and Prevention of Fake Key Attacks in Secure Messaging.** Popular IM applications *e.g.,* WhatsApp provide end-to-end encryption for billions of users. Designed several defenses for fake key attacks and use a threat analysis to identify which attacks each defense can automatically detect or prevent.

Invited Talks

Oct. 2019	**CDNs and their role in Internet filtering circumvention**, *Brigham Young University*, Utah, USA.
Feb. 2020	**Internet maps and censorship**, *COSIC, KU Leuven*, Belgium.
June 2023	**Large scale traffic filtering of Android apps**, *TU Delft*, Netherlands.
May 2024	**Traffic filtering by Android apps**, *Delivered a talk at IETF MAPRG session*, Canada.
May 2025	**GDPR and Privacy Violations**, *Delivered a talk Microsoft Research, Banglore*, India.

Services

2026 **PC member**, *Computer and Communications Security (**CCS**).*

2026 **PC member**, *Asia Computer and Communications Security (**AsiaCCS**).*

2026 **PC Member**, *Usenix Security.*

2026 **PC Member**, *Internet Measurement Conference (**IMC**).*

2026 **PC member**, *Proceedings on Privacy Enhancing Technologies (**PoPETS**).*

2025 **Organizer**, *IMPACT workshop colocated with **NDSS**.*

2025 **Vice Program Chair**, *Proceedings on Privacy Enhancing Technologies (**PoPETS**).*

2025 **PC Member**, *Internet Measurement Conference (**IMC**).*

2025 **PC member**, *Computer and Communications Security (**CCS**).*

2025 **PC Member**, *Usenix Security.*

2025 **PC Member**, *Network Traffic Measurement and Analysis Conference (**TMA**).*

2024 **Associate Editor**, *ACM Transactions on Privacy and Security (**TOPS**).*

2024 **PC member**, *Usenix Security (**Usenix Security**).*

2024 **PC member**, *Computer and Communications Security (**CCS**).*

2024 **PC member**, *Internet Measurement Conference (**IMC**).*

2024 **PC member**, *Proceedings on Privacy Enhancing Technologies (**PoPETS**).*

2024 **PC member**, *Network Traffic Measurement and Analysis Conference (**TMA**).*

2024 **PC member**, *Security and Privacy in Wireless and Mobile Networks (**WiSec**).*

2023 **PC member**, *Proceedings on Privacy Enhancing Technologies (**PoPETS**).*

2023 **PC member**, *European Symposium on Research in Computer Security (**Esorics**).*

2023 **PC member**, *International Conference on Applied Cryptography and Network Security (**ACNS**).*

2022 **PC member**, *European Symposium on Research in Computer Security (**Esorics**).*

2022 **PC member**, *Formal Foundations and Security of Programmable network Infrastructures (FFSPIN), co-located with ACM SIGCOMM.*

2022 **PC member**, *IMC (Shadow PC).*

2020 **Reviewer**, *IEEE Acess Journal.*