

Tanya Shreedhar

Lecturer

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Google Scholar (07/2025): [Citations: 460](#); [h-index: 11](#); [i10-index: 11](#)

Education

- 2015 - 2022 ▶ **Ph.D.** IIIT Delhi, IN
Supervisor: *Prof. Dr. Sanjit K. Kaul*
Mentor: *Prof. Dr. Roy D. Yates* (WINLAB, Rutgers University, USA)
 TCS Research Fellow
 *High throughputs and Information Freshness over the Internet via Transport Layer Advancements*
- 2009 - 2013 ▶ **B.E. Electronics and Electrical Communications** Panjab University, IN
 University Gold Medalist

Experience

- Lecturer ▶ **Delft University of Technology**, The Netherlands Mar 2026 – Present
Software Technology, CS Department
- Postdoctoral Researcher ▶ **Delft University of Technology**, The Netherlands Aug 2024 – Mar 2026
Advisor: *Prof. Dr. Fernando Kuipers*

- Postdoctoral Researcher ▶ **University of Edinburgh**, United Kingdom Nov 2022 – Jul 2024
Advisor: *Prof. Dr. Mahesh Marina*

- Visiting Researcher ▶ **Technical University of Munich (TUM)**, Germany Jan 2020 – Nov 2020
Advisor: *Dr. Vaibhav Bajpai & Prof. Dr.-Ing Jörg Ott*
- Research Assistant ▶ **IIIT Delhi**, India Aug 2014 – Aug 2015
Advisor: *Prof. Dr. Sujay Deb*
- Visiting Researcher ▶ **Central Scientific Instruments Organization (CSIR-CSIO)**, India 2013 – 2014
Ministry of Science and Technology, Government of India

Awards & Achievements

- 1 Awarded Internet Society Pulse Research Fellowship 2025 ([Link](#))
- 2 Invited to Falling Walls Science Summit 2024 in Berlin, Germany ([Link](#))
- 3 Featured in Heidelberg Laureate Forum Foundation (HLFF) Spotlight Series ([Link](#))
- 4 Invited to host the FailForward Workshop at Heidelberg Laureate Forum 2024 ([Link](#))
- 5 Awarded L'Oreal-UNESCO For Women in Science UK and Ireland Rising Talents Award 2023 ([Link](#))
Only shortlisted from computer science field
- 6 Invited to the Organizing Team as a Master of Ceremonies for Heidelberg Laureate Forum 2023 ([Link](#))
- 7 Featured by Women into Science and Engineering (WISE) association ([Link](#))
- 8 Invited to attend Heidelberg Laureate Forum 2022 as a young researcher
- 9 Awarded Overseas Research Fellowship for visiting researcher position at Technical University of Munich, Germany
- 10 Awarded TCS Research Scholar Fellowship to support Ph.D. studies at IIIT Delhi, India
Only 20 awardees annually all over India
- 11 Awarded Gold Medal at Panjab University for securing Rank 1 in Bachelor of Engineering (B.E.)
- 12 Awarded Full Scholarship throughout B.E. for securing 1st position

- 13 Awarded College Color Trophy (equivalent to Dean/Chancellor medal) for exceptional overall academic and all-round performance in B.E.
- 14 Awarded \$1500 scholarship in B.E. by Yogoda Satsanga Society Award for exceptional educational performance
- 15 Awarded State Award by Chandigarh Administration for exceptional achievements in academics, sports, drawing, painting and cultural activities
- 16 Awarded Balshree Award, President of India Award from Chandigarh region
- 17 Awarded CBSE Merit Certificate for All India Secondary School Examination in Mathematics and Science

Publications

In-Submission Pre-Prints

- ▶ Assessing Internet Infrastructure Resilience under Power Grid Failures TBA
T. Shreedhar, Kevin Vermuelen, Amreesh Phokeer, Italo Cunha, Fernando Kuipers

Journal Publications

- 2024 ▶ ACP+: An Age Control Protocol for the Internet ToN '24
T. Shreedhar, Sanjit K. Kaul and Roy D. Yates
 IEEE/ACM *Transactions on Networking* Impact Factor: 4.37 [DOI](#)
- 2023 ▶ Perspectives on Negative Research Results in Pervasive Computing PERMAG '23
 Ella Peltonen, Nitinder Mohan, Peter Zdankin, T. Shreedhar, et al.
 IEEE *Pervasive Computing Magazine* Impact Factor: 9.619 [DOI](#)
- 2021 ▶ Evaluating QUIC Performance over Web, Cloud Storage and Video Workloads TNSM '21
T. Shreedhar, Rohit Panda, Sergey Podanev and Vaibhav Bajpai
 IEEE *Transactions on Network and Service Management* Impact Factor: 5.3 [DOI](#) [Dataset](#)
- 2021 ▶ Beyond QUIC v1: Recent Transport Layer IETF Standardization Efforts COMMAG '21
 Mike Kosek, T. Shreedhar and Vaibhav Bajpai
 IEEE *Communications Magazine* Impact Factor: 11.05 [DOI](#)

Conference Publications

- 2026 ▶ BISCAY: Radio KPI Driven Congestion Control for Mobile Networks NINeS '26
 Jon Larrea, T. Shreedhar, Atte Niemi, Adel Sefiane and Mahesh Marina
New Ideas in Networked Systems [DOI](#) [Video](#) [Code](#)
- 2026 ▶ Investigating Web Content Delivery Performance over Starlink WebConf '26
 Rohan Bose, Jinwei Zhao, T. Shreedhar, Jianping Pan, Nitinder Mohan
 ACM *The Web Conference* (previously WWW) [ArXiv](#)
- 2024 ▶ Through the Lens of Google CrUX: Web Browsing Experience Analysis Networking '24
 Jayasree Sengupta, T. Shreedhar, Robert Kramer and Vaibhav Bajpai
 IFIP *Networking Conference* Acceptance: 25.8% [DOI](#)
- 2022 ▶ Coexistence of Age Sensitive Traffic and High Throughput Flows Infocom Aol '22
T. Shreedhar, Sanjit K. Kaul and Roy D. Yates
 IEEE *Infocom Workshop on Age of Information* [ArXiv](#)
- 2021 ▶ An Empirical Study of Ageing in the Cloud Infocom Aol '21
T. Shreedhar, Sanjit K. Kaul and Roy D. Yates
 IEEE *Infocom Workshop on Age of Information* [DOI](#) [Video](#) [Code](#)
- 2021 ▶ From Single Lane to Highways: Analyzing MPTCP Adoption Networking '21
 Florian Aschenbrenner, T. Shreedhar, Oliver Gasser, Nitinder Mohan, Jörg Ott
 IFIP *Networking Conference* Acceptance: 25.9% [DOI](#) [Video](#) [IETF](#) [Website](#)
- 2019 ▶ An Age Control Transport Protocol for Fresh Updates in IoT WoWMoM '19
T. Shreedhar, Sanjit K. Kaul and Roy D. Yates
 IEEE *World of Wireless Mobile and Multimedia Networks* Acceptance: 29.9% [DOI](#) [Code](#)
- 2018 ▶ QAware: A Cross-Layer Approach to MPTCP Scheduling Networking '18
T. Shreedhar, Nitinder Mohan, Sanjit K. Kaul and Jussi Kangasharju
 IFIP *Networking Conference* Acceptance: 24.4% [DOI](#) [Code](#)

- 2016 ▶ Hierarchical Cluster Based NoC Using Wireless Interconnects VLSID '16
 T. Shreedhar and Sujay Deb
 IEEE VLSI Design and Embedded Systems DOI

Workshop Publications

- 2021 ▶ Distributed Ledgers for Distributed Edge IWCI '21
 L. Eichhorn, T. Shreedhar, A. Zavodovski and N. Mohan DOI Code

Posters & Demos

- 2018 ▶ ACP: Age Control Protocol for Minimizing Age of Information MobiCom '18
 T. Shreedhar, Sanjit K. Kaul and Roy D. Yates
 ACM International Conference on Mobile Computing and Networking Acceptance: 26.7% DOI
- 2018 ▶ Redesigning MPTCP for Edge Clouds MobiCom '18
 N. Mohan, T. Shreedhar, A. Zavodovski, O. Waltari, et al.
 ACM International Conference on Mobile Computing and Networking Acceptance: 26.7% DOI Code

Service

Organizer

- ▶ [TMA] Network Traffic Measurement and Analysis Conference 2026
 “ PhD School Chair
- ▶ [HLF] Heidelberg Laureate Forum [FailForward Workshop] 2024 2025
- ▶ [COMSNETS] Intl. Conference on COMMunication Systems & NETWORKS 2025 2026
 “ Graduate Forum Chair and Publicity Chair
- ▶ [IoT] Intl. Conference on the Internet of Things 2024
 “ Workshop Chair
- ▶ [PerFail] Intl. Workshop on Negative Results in Pervasive Computing 2022 2024 2025 2026
 “ Hosted with IEEE Pervasive Computing (PERCOM) conference
- ▶ [S3 MobiCom] ACM Wireless of, by, and for the Students Workshop 2023
 “ Panel Moderator
- ▶ [SIGCOMM] ACM SIGCOMM Panel 2021
 “ Panel Moderator and Co-organizer
- ▶ [IIITD-RS] IIIT Delhi Research Showcase 2016 2017 2018

Award Committee Member

- ▶ [ANRP] IETF/IRTF Applied Networking Research Prize 2024

Mentorship and Responsibilities

- ▶ [N2-Women] Networking Networking Women 2025
 “ Board Member and Geo-diversity Co-chair
- ▶ [HLF] Heidelberg Laureate Forum 2024 2024
 “ Moderator & Mentor for Women in Mathematics and CS and Negative Results
- ▶ [WISE] Women into Science and Engineering, UK 2023
 “ Spokesperson
- ▶ [MobiSys] ACM International Conference on Mobile Systems, Applications, and Services 2021
 “ Mentorship Program Mentor
- ▶ [DAC] Disciplinary and Action Committee at IIIT Delhi 2016 2017
 “ Student Representative
- ▶ [IIIT-D] Ph.D. Students Representative 2015 2016
- ▶ [IETE & ISTE] Institution of Electronics and Telecommunication Engineers & Indian Society for Technical Education 2010 2012
 “ Head of insititute chapter

Technical Program Committee Member

- ▶ [PAM] Passive and Active Measurement Conference 2024 2025 2026
- ▶ [TMA] IFIP/IEEE Traffic Measurements and Analysis Conference 2024 2025
- ▶ [COMSNETS] Intl. Conference on COMMunication Systems & NETWORKS 2025 2026
- ▶ [TDIS] ACM Workshop on Testing Distributed Internet of Things Systems 2026
- ▶ [ANRW] ACM/IRTF Applied Networking Research Workshop 2024 2025
- ▶ [CSCN] IEEE Conference on Standards for Communications and Networking 2023 2024
- ▶ [MobiCom] ACM International Conference on Mobile Computing and Networking (Posters) 2023
- ▶ [PerFail] IEEE Workshop on Negative Results in Pervasive Computing 2023 2024 2025
- ▶ *Track Chair (2025)*
- ▶ [EDGE-WELL] IEEE Workshop (Co-located with IEEE PerCom) 2025
- ▶ [SMS] ACM Workshop (Co-located with MobiSys) 2021

Reviewer

- ▶ [CoNEXT] ACM International Conference on emerging Networking EXperiments and Technologies 2025
- ▶ [Infocom] IEEE International Conference on Computer Communications 2024
- ▶ [ToN] IEEE Transactions on Networking 2022 2023 2024
- ▶ [TMC] IEEE Transactions on Mobile Computing 2023 2024 2025
- ▶ [TSC] IEEE Transactions on Sustainable Computing 2024
- ▶ [NETMAG] IEEE Network Magazine 2023
- ▶ [COMMAG] IEEE Communications Magazine 2022 2023
- ▶ [OJ-ITS] IEEE Open Journal of Intelligent Transportation Systems 2022
- ▶ [GLOBECOM] IEEE Global Communications Conference 2020 2022
- ▶ [TMA] International Conference on Traffic Measurements & Analysis 2018 2022
- ▶ [Networking] IFIP Networking 2020 2021
- ▶ [IM] IFIP/IEEE International Symposium on Integrated Network Management 2021
- ▶ [TNSM] IEEE Transactions on Network and Service Management 2021
- ▶ [TWC] IEEE Transactions on Wireless Communications 2020
- ▶ [CNSM] International Conference on Network and Service Management 2020
- ▶ [TNSE] IEEE Transactions on Network Science and Engineering 2020
- ▶ [CSUR] ACM Computing Survey 2020
- ▶ [COMSNETS] International Conference on COMMunication Systems & NETWORKS 2018

Invited Talks

- 2025 ▶ ISOC Pulse Research Week Internet Society
Barcelona, Spain
- 2025 ▶ AlumNode: Klaus Tschira Stiftung Invited Lecture AlumNode
Virtual Event, 30+ attendees
“ FailForward: Acknowledging Negative Knowledge
- 2025 ▶ NATO Summit 2025 Pre-event NATO
The Hague, Netherlands, 30+ attendees
“ Blackouts and Byteouts: Addressing Critical Infrastructure Inter-dependencies
- 2025 ▶ NWO ICT.Open CompSys Workshop ICT.OPEN
Utrecht, Netherlands, 50+ attendees
“ Understanding Critical Infrastructure Interdependence in The Netherlands
- 2024 ▶ Alice and Eve Workshop A&E
Leiden, Netherlands, 100+ attendees
“ ACP+ Age Control Protocol for critical IoT applications

2023	▶ 35 th Multi-Service Networks Workshop Oxford, UK, 60+ attendees 🗨️ <i>A Multifaceted Look at Multipath TCP Adoption in the Internet</i>	COSENERS
2022	▶ KTH Royal Institute of Technology Virtual Event, 100+ attendees 🗨️ <i>ACP+ Age Control Protocol for critical IoT applications</i>	KTH
2021	▶ TCS Research and Innovation Virtual Event, 100+ attendees 🗨️ <i>Understanding Information Freshness of Internet-connected IoT applications</i>	TCS
2020	▶ Chair of Connected Mobility, Technical University of Munich Munich, Germany, 30+ attendees 🗨️ <i>Understanding Information Freshness of Internet-connected IoT applications</i>	TUM
2019	▶ Electrical and Computer Engineering Department, Northeastern University Boston, U.S.A, 20+ attendees 🗨️ <i>ACP: Age Control Protocol for IoT Applications</i>	NORTHEASTERN
2019	▶ NETMIT Research Group, Massachusetts Institute of Technology Cambridge, U.S.A, 30+ attendees 🗨️ <i>ACP: Age Control Protocol for IoT Applications</i>	MIT
2018	▶ Collaborative Networking (CoNe) Lab, University of Helsinki Helsinki, Finland, 30+ attendees 🗨️ <i>ACP: Age Control Protocol for IoT Applications</i>	UNIV. OF HELSINKI

Teaching Experience

▶ [Guest Lecturer]	<i>High Performance Data Networking</i>	(P.G. Course TU-Delft)	2024 2025
	Class strength: 80+		
▶ [Head Teaching Assistant]	<i>Reinforcement Learning</i>	(U.G./P.G. Course IIIT-Delhi)	2019
	Class strength: 50+		
▶ [Head Teaching Assistant]	<i>Communication Networks</i>	(U.G./P.G. Course IIIT-Delhi)	2019
	Class strength: 100+		
▶ [Head Teaching Assistant]	<i>Probability and Random Processes</i>	(U.G./P.G. Course IIIT-Delhi)	2017
	Class strength: 230+		
▶ [Head Teaching Assistant]	<i>Computer Organization</i>	(U.G. Course IIIT-Delhi)	2015
	Class strength: 180+		
▶ [Head Teaching Assistant]	<i>Linear Algebra</i>	(U.G. Course IIIT-Delhi)	2014
	Class strength: 180+		

Supervision - Completed - Ongoing (Arranged in reverse chronological order)

M.Sc. Supervision

	▶ <i>Elvin Chen</i>	2025
	Topic: Assessing Resilience of LEO satellite networks	TU Delft
	▶ <i>Molham Khoja</i>	2022
	Topic: Predict the Cell User throughput KPI for 4G radio Cells by using Temporal Fusion Transformers	Univ. of Edinburgh
	▶ <i>Alex Lycouris</i>	2022
	Topic: Analysis of user behaviour from online ad platform based measurement data	Univ. of Edinburgh
	▶ <i>Leo Eichhorn</i>	2021
	Topic: Exploring latency boundaries of blockchains in edge computing networks	TU Munich
	 Published in ACM CoNEXT IWCI 2022	
	▶ <i>Akash Kamble</i>	2020
	Topic: Understanding the performance of QUIC in mobile environments	TUM

B.Sc. Supervision

	<p>▶ <i>Cristian Benghe</i> <small>Topic: Capturing the Spatiotemporal Dynamics of LEO ISP Performance</small></p>	<p>2025 TU Delft</p>
	<p>▶ <i>Janusz Urbanski</i> <small>Topic: Enhancing Telemetry with User-Initiated Active Measurements</small></p>	<p>2025 TU Delft</p>
	<p>▶ <i>Christiaan Baraya</i> <small>Topic: Unraveling LEO ISP Routing and Infrastructure Dependencies</small></p>	<p>2025 TU Delft</p>
	<p>▶ <i>Vlad Graure</i> <small>Topic: Integrating Heterogeneous Internet Performance Data</small></p>	<p>2025 TU Delft</p>
	<p>▶ <i>Li Ka Wing</i> <small>Topic: WhiteHaul based Spectrum Aggregation in Wi-Fi Bands</small></p>	<p>2023 University of Edinburgh</p>
	<p>▶ <i>Fadi Barazi</i> <small>Topic: Revisiting Internet Transport in the Age of Machine Learning</small></p>	<p>2023 University of Edinburgh</p>
	<p>▶ <i>Florian Aschenbrenner</i> <small>Topic: Measuring and Analysing MPTCP Support on the Internet</small> <small>📄 Published in IFIP Networking 2021 [Acceptance rate: 25.9%]</small></p>	<p>2021 TUM</p>

Technical Skills

Programming	▶ C, C + +, PYTHON, BASH, HTML5
Hardware	▶ VHDL, VERILOG
Tools & Technologies	▶ MATLAB, NS3, Linux Kernel, TeX
Languages	▶ English Expert Hindi Expert Punjabi Expert French Beginner Dutch Beginner

Professional Memberships

2025–Present	▶ N2Women (Networking Networking Women)	Geo-Diversity Co-Chair
2018–Present	▶ ACM (Association for Computing Machinery)	Professional
2018–Present	▶ IEEE (Institute of Electrical and Electronics Engineers)	Professional
2014–Present	▶ IEEE ComSoc (Communications Society)	Member
2009–2013	▶ ISTE (Indian Society for Technical Education)	Student Member

References

Fernando Kuipers

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Delft University of Technology, Netherlands
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Jörg Ott

Professor
Technical University of Munich, Germany
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Sanjit K. Kaul

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Roy D. Yates

Distinguished Professor
Rutgers University, USA
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