CURRICULUM VITAE
for Neeldhara Misra

Smt. Amba and Sri. V S Sastry Chair Associate Professor,
Discipline of Computer Science and Engineering

& Associate Dean, External Communications

2021—Present Associate Professor, Indian Institute of Technology, Gandhinagar

2015—2021 Assistant Professor, Indian Institute of Technology, Gandhinagar

Personal

Date of Birth: November 25, 1987
Contact: neeldhara.m@iitgn.ac.in | 91-9712-990-170 | http://neeldhara.com/

Academic Credentials

2012 PhD in Theoretical Computer Science
The Institute of Mathematical Sciences, Chennai

2009 MSc in Theoretical Computer Science
The Institute of Mathematical Sciences, Chennai

2007 BSc in Mathematics, Statistics and Computer Science
Mount Carmel College, Bangalore

Professional Experience

2013-15 Inspire Faculty Fellow
Indian Institute of Science, Bangalore

2012-13 Research Associate
Indian Institute of Science, Bangalore

Awards

2021 Associate of the Indian Academy Of Sciences
2020 INAE Young Engineer Award
2019 IIT Gandhinagar Excellence Award in Outreach Activities
2013 DST-INSPIRE Faculty Fellowship
2007 Mrs Seethamma Subbiah Golden Jubilee Prize, Best Student at Mount Carmel College

Publications

Chapters in Books

2016 Neeldhara Misra. "Alternate Parameterizatons". Encyclopedia of Algorithms, 2nd Edition. 2016

2016 Neeldhara Misra. "Kernelization, Planar F-Deletion". Encyclopedia of Algorithms, 2nd Edition. 2016

Expository and Review Articles

2012 Daniel Lokshtanov, Neeldhara Misra, and Saket Saurabh. "Kernelization - Preprocessing with a Guarantee". The Multivariate Algorithmic Revolution and Beyond. 2012, pp. 129–161

2011 Neeldhara Misra, Venkatesh Raman, and Saket Saurabh. "Lower bounds on kernelization". Discrete Optimization 8.1 (2011), pp. 110–128

2008 Neeldhara Misra. "The Missing Boarding Pass". Resonance 13.7 (2008), pp. 662–679

Papers in Refereed Journals

2022 Pradeesha Ashok, Sudeshna Kolay, Neeldhara Misra, and Saket Saurabh. "Exact Multi-Covering Problems with Geometric Sets". Theory Comput. Syst. 66.1 (2022), pp. 89–113. Also appeared in the Proceedings of the Annual International Computing and Combinatorics Conference (COCOON) 2015

2021 Palash Dey, Neeldhara Misra, Swaprava Nath, and Garima Shakya. "A parameterized perspective on protecting elections". Theor. Comput. Sci. 874 (2021), pp. 15–31. Also appeared in the Proceedings of the Twenty-Eighth International Joint Conference on Artificial Intelligence (IJCAI) 2019

2020 Akanksha Agrawal, N. R. Aravind, Subrahmanyam Kalyanasundaram, Anjeneya Swami Kare, Juho Lauri, Neeldhara Misra, and I. Vinod Reddy. "Parameterized complexity of happy coloring problems". Theoretical Computer Science 835 (2020), pp. 58–81. Also appreared in the Proceedings of the 28th International Workshop on Combinatorial Algorithms, (IWOCA) 2017

2020 Neeldhara Misra, Fahad Panolan, and Saket Saurabh. "Subexponential algorithm for d-cluster edge deletion: Exception or rule?" Journal of Computing and System Sciences 113 (2020), pp. 150–162. Also appeared in the Proceedings of the 38th International Symposium on Mathematical Foundations of Computer Science (MFCS) 2013

2020 Sandip Banerjee, Neeldhara Misra, and Subhas C. Nandy. "Color spanning objects: Algorithms and hardness results". Discrete Applied Mathematics 280 (2020), pp. 14–22. Also appeared in the Proceedings of the Second International Conference on Algorithms and Discrete Applied Mathematics, (CALDAM) 2016

2019 Bireswar Das, Murali Krishna Enduri, Masashi Kiyomi, Neeldhara Misra, Yota Otachi, I. Vinod Reddy, and Shunya Yoshimura. "On structural parameterizations of firefighting". Theoretical Computer Science 782 (2019), pp. 79–90. Also appeared in the Proceedings of the 28th International Workshop on Combinatorial Algorithms, (IWOCA), 2017.

2019 Palash Dey, Neeldhara Misra, and Y. Narahari. "Parameterized dichotomy of choosing committees based on approval votes in the presence of outliers". Theoretical Computer Science 783 (2019), pp. 53–70. Also appeared in the Proceedings the International Conference on Autonomous and Multiagent Systems (AAMAS), 2017.

2019 Neeldhara Misra, Fahad Panolan, Ashutosh Rai, Venkatesh Raman, and Saket Saurabh. "Parameterized Algorithms for Max Colorable Induced Subgraph Problem on Perfect Graphs". Algorithmica 81.1 (2019), pp. 26–46. Also appeared in the Proceedings of the 39th International Workshop on Graph-Theoretic Concepts in Computer Science (WG), 2013.

2018 Sandip Banerjee, Neeldhara Misra, and Subhas C. Nandy. "Color spanning objects: Algorithms and hardness results". Discrete Applied Mathematics (2018). (To Appear.) Also appeared in the Proceedings of the Second International Conference on Algorithms and Discrete Applied Mathematics (CALDAM), 2016.

2018 Palash Dey, Neeldhara Misra, and Y. Narahari. "Complexity of manipulation with partial information in voting". Theor. Comput. Sci. 726 (2018), pp. 78–99. Also appeared in the Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence (IJCAI), 2016.

2017 Serge Gaspers, Neeldhara Misra, Sebastian Ordyniak, Stefan Szeider, and Stanislav Zivny. "Backdoors into heterogeneous classes of SAT and CSP". J. Comput. Syst. Sci. 85 (2017), pp. 38–56. Also appeared in the Proceedings of the Twenty-Eighth AAAI Conference on Artificial Intelligence (AAAI), 2014.

2017 Palash Dey, Neeldhara Misra, and Y. Narahari. "Frugal bribery in voting". Theor. Comput. Sci. 676 (2017), pp. 15–32 . Also appeared in the Proceedings of the Twenty-Eighth AAAI Conference on Artificial Intelligence (AAAI), 2016.

2016 Fedor V. Fomin, Daniel Lokshtanov, Neeldhara Misra, Geevarghese Philip, and Saket Saurabh. "Hitting Forbidden Minors: Approximation and Kernelization". SIAM J. Discrete Math. 30.1 (2016), pp. 383–410. Also appeared in the Proceedings of the 28th International Symposium on Theoretical Aspects of Computer Science (STACS), 2011.

2016 Palash Dey, Neeldhara Misra, and Y. Narahari. "Kernelization complexity of possible winner and coalitional manipulation problems in voting". Theor. Comput. Sci. 616 (2016), pp. 111–125. Also appeared in the Proceedings of the 2015 International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2015

2015 Pinar Heggernes, Pim van 't Hof, Dániel Marx, Neeldhara Misra, and Yngve Villanger. "On the Parameterized Complexity of Finding Separators with Non-Hereditary Properties". Algorithmica 72.3 (2015), pp. 687–713. Also appeared in the Proceedings of the 38th International Workshop on Graph-Theoretic Concepts in Computer Science (WG), 2012

2014 Neeldhara Misra, Geevarghese Philip, Venkatesh Raman, and Saket Saurabh. "The Kernelization Complexity of Connected Domination in Graphs with (no) Small Cycles". Algorithmica 68.2 (2014), pp. 504–530. Also appeared in the Proceedings of the Foundations of Software Technology and Theoretical Computer Science (FSTTCS), 2010

2013 Neeldhara Misra, N.S. Narayanaswamy, Venkatesh Raman, and Bal Sri Shankar. "Solving min ones 2–sat as fast as vertex cover". Theoretical Computer Science (2013), pp. 115–121. Also appeared in the Proceedings of the Mathematical Foundations of Computer Science (MFCS), 2010

2013 Daniel Lokshtanov, Neeldhara Misra, and Saket Saurabh. "Imbalance is fixed parameter tractable". Inf. Process. Lett. 113.19-21 (2013), pp. 714–718. Also appeared in the Proceedings of the Conference on Computing and Combinatorics (COCOON), 2010

2013 Neeldhara Misra, Hannes Moser, Venkatesh Raman, Saket Saurabh, and Somnath Sikdar. "The Parameterized Complexity of Unique Coverage and Its Variants". Algorithmica 65.3 (2013), pp. 517–544. Also appeared in the Proceedings of the Computer Science Symposium in Russia (CSR), 2009.

2012 Fedor V. Fomin, Daniel Lokshtanov, Neeldhara Misra, Geevarghese Philip, and Saket Saurabh. "Quadratic Upper Bounds on the Erdos-Posa property for a generalization of Packing and Covering cycles" (2012), pp. 417–424

2012 Neeldhara Misra, Geevarghese Philip, Venkatesh Raman, and Saket Saurabh. "On Parameterized Independent Feedback Vertex Set". Theoretical Computer Science (2012), pp. 65–25 (Also appeared at the Proceedings of the Conference on Computing and Combinatorics, COCOON, 2011.)

2012 Neeldhara Misra, Geevarghese Philip, Venkatesh Raman, Saket Saurabh, and Somnath Sikdar. "FPT algorithms for Connected Feedback Vertex Set". J. Comb. Optim. 24.2 (2012), pp. 131–146 (Also appeared at the Proceedings of WALCOM: Algorithms and Computation, 2010.)

2009 Michael R. Fellows, Daniel Lokshtanov, Neeldhara Misra, Matthias Mnich, Frances A. Rosamond, and Saket Saurabh. "The Complexity Ecology of Parameters: An Illustration Using Bounded Max Leaf Number". Theory of Computing Systems 45.4 (2009), pp. 822–848. Also appeared in the Proceedings of the International Symposium on Algorithms and Computation, ISAAC, 2008.

Contributed (Non-Invited) Papers/Abstracts in Published Conference Proceedings

2022 Neeldhara Misra, Harshil Mittal, and Saraswati Nanoti. "Diverse Non Crossing Matchings". Proceedings of the 32nd Canadian Conference on Computational Geometry, CCCG. 2020, To Appear

2022 Neeldhara Misra Jasine Babu and Saraswati Nanoti. "Eternal Vertex Cover on Bipartite and Co-Bipartite Graphs". Computer Science Symposium in Russia, CSR. 2022, To Appear

2022 N. R. Aravind, Neeldhara Misra, and Harshil Mittal. "Chess Is Hard Even for a Single Player". Proceedings of the 11th International Conference on Fun with Algorithms, FUN. vol. 226. LIPIcs. 2022, 5:1–5:20

2022 Neeldhara Misra and Debanuj Nayak. "On Fair Division with Binary Valuations Respecting Social Networks". Proceedings of the 8th International Conference on Algorithms and Discrete Applied Mathematics, CALDAM. vol. 13179. Lecture Notes in Computer Science. 2022, pp. 265–278

2021 Neeldhara Misra and Aditi Sethia. "Fair Division Is Hard Even for Amicable Agents". Proceedigns of the 47th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM). vol. 12607. Springer, 2021, pp. 421–430

2020 Neeldhara Misra, Harshil Mittal, and Aditi Sethia. "Red-Blue Point Separation for Points on a Circle". Proceedings of the 32nd Canadian Conference on Computational Geometry, CCCG. 2020

2020 Neeldhara Misra and Harshil Mittal. "Imbalance Parameterized by Twin Cover Revisited". Proceedings of the 26th International Conference of Computing and Combinatorics. Vol. 12273. Lecture Notes in Computer Science. 2020, pp. 162–173

2020 Palash Dey, Neeldhara Misra, and Chinmay Sonar. "On the complexity of Winner Verification and Candidate Winner for Multiwinner Voting Rules". Proceedings of the Twenty-Ninth International Joint Conference on Artificial Intelligence (IJCAI). 2020, pp. 89–95

2020 Kishen N. Gowda, Neeldhara Misra, and Vraj Patel. "A Parameterized Perspective on Attacking and Defending Elections". Proceedings of the 31st International Workshop on Combinatorial Algorithms (IWOCA). 2020, pp. 277–288

2020 Chamanvir Kaur and Neeldhara Misra. "On the Parameterized Complexity of Spanning Trees with Small Vertex Covers". Proceedings of the Sixth International Conference on Algorithms and Discrete Applied Mathematics (CALDAM). vol. 12016. Lecture Notes in Computer Science. Springer, 2020, pp. 427–438

2019 Neeldhara Misra. "On the Parameterized Complexity of Party Nominations". Proceedings of the Sixth International Conference on Algorithmic Decision Theory (ADT). vol. 11834. Lecture Notes in Computer Science. Springer, 2019, pp. 112–125

2019 Pratyush Dayal and Neeldhara Misra. "Deleting to Structured Trees". Proceedings of the Twenty-Fifth Conference on Computing and Combinatorics (COCOON). vol. 11653. Springer, 2019, pp. 128–139

2019 Neeldhara Misra and Piyush Rathi. "The Parameterized Complexity of Dominating Set and Friends Revisited". Computer Science Symposium in Russia, CSR. 2019, pp. 299–310

2019 Neeldhara Misra, Fahad Panolan, and Saket Saurabh. "On the Parameterized Complexity of Edge-Linked Paths". Computer Science Symposium in Russia, CSR. 2019, pp. 286–298

2019 Neeldhara Misra and Chinmay Sonar. "Robustness Radius for Chamberlin-Courant on Restricted Domains". Proceedings of the 45th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM). 2019, pp. 341–353

2019 Manoj Gupta, Hitesh Kumar, and Neeldhara Misra. "On the Complexity of Optimal Matching Reconfiguration". Proceedings of the 45th International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM). 2019, pp. 221–233

2018 Neeldhara Misra. "On the Parameterized Complexity of Colorful Components and Related Problems". Proceedings of the 29th International Workshop on Combinatorial Algorithms (IWOCA). 2018, pp. 237–249

2018 Davide Bilò, Luciano Gualà, Stefano Leucci, and Neeldhara Misra. "On the Complexity of Two Dots for Narrow Boards and Few Colors". Proceedings of the 9th International Conference on Fun with Algorithms (FUN). 2018, 7:1–7:15

2018 Bireswar Das, Murali Krishna Enduri, Neeldhara Misra, and I. Vinod Reddy. "On Structural Parameterizations of Firefighting". Proceedings of the 4th International Conference on Algorithms and Discrete Applied Mathematics (CALDAM). 2018, pp. 221–234

2017 Neeldhara Misra, Chinmay Sonar, and P. R. Vaidyanathan. "On the Complexity of Chamberlin-Courant on Almost Structured Profiles". Proceedings of the Fifth International Conference on Algorithmic Decision Theory (ADT). 2017, pp. 124–138

2017 Jayesh Choudhari, Anirban Dasgupta, Neeldhara Misra, and M. S. Ramanujan. "Saving Critical Nodes with Firefighters is FPT". Proceedings of the 44th International Colloquium on Automata, Languages, and Programming (ICALP). 2017, 135:1–135:13

2017 Neeldhara Misra and Palash Dey. "On the Exact Amount of Missing Information that makes Finding Possible Winners Hard". Proceedings of the 42nd International Symposium on Mathematical Foundations of Computer Science (MFCS). 2017, 57:1–57:14

2016 Neeldhara Misra. "Two Dots is NP-complete". Proceedings of the 8th International Conference on Fun with Algorithms (FUN). 2016, 24:1–24:12

2016 Palash Dey and Neeldhara Misra. "Elicitation for Preferences Single Peaked on Trees". Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence (IJCAI). 2016, pp. 215–221

2016 Palash Dey and Neeldhara Misra. "Preference Elicitation for Single Crossing Domain". Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence (IJCAI). 2016, pp. 222–228

2016 Shivaram Kalyanakrishnan, Neeldhara Misra, and Aditya Gopalan. "Randomised Procedures for Initialising and Switching Actions in Policy Iteration". Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence (AAAI). 2016, pp. 3145–3151

2016 Rohit Vaish, Neeldhara Misra, Shivani Agarwal, and Avrim Blum. "On the Computational Hardness of Manipulating Pairwise Voting Rules". Proceedings of the 2016 International Conference on Autonomous Agents & Multiagent Systems (AAMAS). 2016, pp. 358–367

2015 Palash Dey, Neeldhara Misra, and Y. Narahari. "Detecting Possible Manipulators in Elections". Proceedings of the 2015 International Conference on Autonomous and Multiagent Systems (AAMAS). 2015, pp. 1441–1450

2015 Palash Dey, Neeldhara Misra, and Y. Narahari. "Kernelization Complexity of Possible Winner and Coalitional Manipulation Problems in Voting". Proceedings of the 2015 International Conference on Autonomous and Multiagent Systems (AAMAS). 2015

2015 Neeldhara Misra, Arshed Nabeel, and Harman Singh. "On the Parameterized complexity of Minimax Approval Voting". Proceedings of the 2015 International Conference on Autonomous and Multiagent Systems (AAMAS). 2015, pp. 97–105

2015 Vikram Kamat and Neeldhara Misra. "Parameterized Algorithms and Kernels for 3-Hitting Set with Parity Constraints". Proceedings of the 9th International Conference on Algorithms and Complexity (CIAC). 2015, pp. 249–260

2015 Fedor V Fomin, Daniel Lokshtanov, Neeldhara Misra, M S Ramanujan, and Saket Saurabh. "Solving d-SAT via Backdoors to Small Treewidth". Proceedings of the 26th SIAM-ACM Symposium on Discrete Algorithms (SODA). 2015, pp. 630–641

2014 Aniket Basu Roy, Sathish Govindarajan, Neeldhara Misra, and Shreyas Shetty. "On the d-Runaway Rectangle Escape Problem". Proceedings of the 26th Canadian Conference on Computational Geometry (CCCG). 2014

2014 Akanksha Agrawal, Sathish Govindarajan, and Neeldhara Misra. "Vertex Cover Gets Faster and Harder on Low Degree Graphs". Proceedings of the 20th Annual International Computing and Combinatorics Conference (COCOON). 2014, pp. 179–190

2014 Palash Dey, Prachi Goyal, and Neeldhara Misra. "UNO Gets Easier for a Single Player". Proceedings of the 7th International Conference on Fun with Algorithms (FUN). 2014, pp. 147–157

2013 Prachi Goyal, Neeldhara Misra, and Fahad Panolan. "Faster Deterministic Algorithms for r-Dimensional Matching Using Representative Sets". Proceedings of the 33rd IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS). 2013, pp. 237–248

2013 Daniel Lokshtanov, Neeldhara Misra, Geevarghese Philip, M. S. Ramanujan, and Saket Saurabh. "Hardness of r-Dominating Set on Graphs of Diameter (r+1)". Proceedings of the 8th International Symposium of Parameterized and Exact Computation (IPEC). 2013, pp. 255–267

2013 Daniel Lokshtanov, Neeldhara Misra, and Saket Saurabh. "On the hardness of eliminating small induced subgraphs by contracting edges". Proceedings of the 8th International Symposium of Parameterized and Exact Computation (IPEC). 2013, pp. 243–254

2013 Prachi Goyal, Vikram Kamat, and Neeldhara Misra. "On the Parameterized Complexity of the Maximum Edge Coloring Problem". Proceedings of the 38th International Symposium on Mathematical Foundations of Computer Science (MFCS). 2013, pp. 492–503

2013 Neeldhara Misra, Sebastian Ordyniak, Venkatesh Raman, and Stefan Szeider. "Upper and Lower Bounds for Weak Backdoor Set Detection". Proceedings of the 16th International Conference on Theory and Applications of Satisfiability Testing (SAT). 2013, pp. 394–402

2013 Ninad Rajgopal, Pradeesha Ashok, Sathish Govindarajan, Abhijit Khopkar, and Neeldhara Misra. "Hitting and Piercing Rectangles Induced by a Point Set". Proceedings of the 19th International Conference on Computing and Combinatorics (COCOON). 2013, pp. 221–232

2012 Fedor V. Fomin, Daniel Lokshtanov, Neeldhara Misra, and Saket Saurabh. "Planar F-Deletion: Approximation, Kernelization and Optimal FPT Algorithms". Proceedings of the 53rd Annual IEEE Symposium on Foundations of Computer Science (FOCS). 2012, pp. 470–479

2011 S. Arumugam, K. Raja Chandrasekar, Neeldhara Misra, Geevarghese Philip, and Saket Saurabh. "Algorithmic Aspects of Dominator Colorings in Graphs". Proceedings of the 22nd International Workshop on Combinatorial Algorithms (IWOCA). 2011, pp. 19–30

2010 Abhimanyu M. Ambalath, Radheshyam Balasundaram, Chintan Rao H., Venkata Koppula, Neeldhara Misra, Geevarghese Philip, and M. S. Ramanujan. "On the Kernelization Complexity of Colorful Motifs". Proceedings of the 5th International Symposium in Parameterized and Exact Computation (IPEC). 2010, pp. 14–25

Invited Lectures

2022 On Fair Division with Binary Valuations Respecting Social Networks, Workshop on Computation and Economics

2022 Problem Solving with Python, a workshop conducted at Paradox, the NPTEL offline Convocation Event

2022 The Games we Play, STCS Vigyan Vidushi 2022 Distinguished Lecture

2022 A career in academia: why and why not?, ACM-W India Grad Cohort Workshop, CSE, IIT Jodhpur

2022 Panel discussion on "The Source Code": Foundational Literacy Numeracy Digitacy and Beyond, Raising Learners For India 2040, a Karadi Path event

2022 Parameterized Approaches to Kemeny Rank Aggregation, Bangalore Theory Seminars, CSA, Indian Institute of Science and MSR Bangalore

2022 Current Research Directions in Fair Division, ACM Goa Chapter Seminar Series

2021 Panel discussion on Women in Computing Panel on PhD Opportunities in India, CSA, Indian Institute of Science

2021 Algorithmic Aspects of Firefighting, a short talk given as a part of the INAE webinar series

2021 Party Nominations, a talk at "ReLaX" — a Workshop on Games Chennai Mathematical Institute

2020 Parameterized Algorithms for Variants of Dominating Set, series of invited lectures in a virtual workshop on "Recent Trends Domination in Graphs: Algorithms, Complexity and Applications" organized by NIT Warangal

2019 Explorable Explanations: Interactive Essays, Winter Institute in Digital Humanities, IIT Gandhinagar

2019 On Stable Matchings, Keynote Talk at the ACM India Student Chapters Summit, Manipal University

2019 Chamberlin-Courant on Restricted Domains, Recent Trends in Algorithms, National Institute of Science Education and Research, Bhubaneswar

2019 Firefighting with Critical Nodes, CSA50 - Pratiksha Trust Workshop on Theoretical Computer Science, Indian Institute of Science, Bangalore

2019 Early Career Researcher Presentation, 13th Inter-Research-Institute Student Seminar in Computer Science, Rajagiri School of Engineering and Technology

2018 Technical presentation skills versus interpersonal skills, joint presentation with Varsha Apte, First ACM India Grad Cohort Workshop for Women in Computing, IIT Bombay

2017 An Introduction to Parameterized Algorithms, Pre-Conference Workshop on Graph Algorithms (13th ADMA Conference), SSN College

2017 Efficient Algorithms for Hard Problems on Structured Electorates, Invited talk at the workshop on Aspects of Computation, National University of Singapore

2016 Efficient Algorithms for Hard Problems on Structured Electorates, Workshop on Rangoli of Algorithms, Chennai Mathematical Institute

2016 Parameterized Algorithms for Computational Social Choice, Workshop on Game Theory and Optimization, Indian Institute of Science

2016 Elicitation for Preferences Single Peaked on Trees, CS-Econ Seminar Series, Duke University

2016 Parameterized Algorithms, Tutorial Talk, Duke University

2016 An Introduction to Computational Social Choice, Workshop on Game Theory and Optimization, Indian Institute of Science

2015 On the Planar F-Deletion Problem, Fourth India-Taiwan Conference on Discrete Mathematics, IIT Madras

2015 Glimpses of Algebraic Graph Theory and Linear Algebra Methods in Combinatorics, Workshop on Linear Algebra and Related Topics at the School of Mathematics and Computing Sciences, Rani Channamma University, Belagavi

2015 Some Algorithmic Excursions, Science Academies' Education Program, Workshop for Pre-University Students in Elementary Mathematics, at Christ College, Bangalore

2014 Parameterized Graph Modification: A Modern Perspective, New Developments in Exact Algorithms and Lower Bounds, Pre-FSTTCS Workshop, IIT Delhi

2014 Iterative Compression for FVS, IIIT Bangalore

2014 Max q-Colorable Induced Subgraph Problem on Perfect Graphs, Graph Modification Problems, Dagstuhl, Germany

2012 Kernels for Planar F-Deletion, Data Reduction and Problem Kernels, Dagstuhl, Germany

2012 Separators with Non-Hereditary Properties, Mini-Workshop on Logic, Proofs and Algorithms, VCLA

2012 From FVS to F-deletion: the Story of a Simple Algorithm, VCLA, Technical University of Vienna

2012 Kernelization, Chennai Update Meeting on Parameterized Complexity, Institute of Mathematical Sciences, Chennai

2012 Connected Dominating Set and Short Cycles, Indian Statistical Institute, Bangalore

2011 Efficient Simplification: Polynomial Time Revisited, Indian Institute of Science

2010 Efficient Simplification: The (im)possibilities, IMPECS School on Parameterized Complexity, Institute for Mathematical Sciences

2010 Expansions for Reductions, Workshop on Kernelization, Lorentz Center, Netherlands

2010 Connected Dominating Set and Short Cycles, Algorithms Seminar Series, University of Bergen, Norway

2010 Lower Bounds on Kernelization, Chalmers University, Sweden

2010 Iterative Compression: Try, try, till you succeed — or fail. Kalasalingam University, Madurai, and Institute Seminar Week, The Institute of Mathematical Sciences

Contributed (Non-Invited) Papers/abstracts at Workshops

2016 Rohit Vaish and Neeldhara Misra. "On the Parameterized Complexity of Manipulating Pairwise Voting Rules". The 3rd Workshop on Exploring Beyond the Worst Case in Computational Social Choice. 2016

2013 Vikram Kamat and Neeldhara Misra. "An Erdos-Ko-Rado theorem for matchings in the complete graph". Proceedings of the European Conference on Combinatorics, Graph Theory and Applications (Eurocomb). 2013

Program Committee Member for National and International Conferences

2023 AAMAS, IJCAI

2022 MFCS, FUN, IPEC, CALDAM, AAMAS, IJCAI, ACM-India COMPUTE, CTiS

2021 COMSOC, AAAI, AAMAS, IJCAI, IRISS, ACM-India COMPUTE, CTiS

2020 IRISS (PC Chair), CSR, ECAI, IJCAI

2019 FSTTCS, IJCAI, AAMAS, MFCS, SOFSEM (Computational Biology Track)

2018 FSTTCS, COMSOC, AAMAS, IJCAI, FAW

2017 IPEC, AAMAS

2016 AAMAS

Other Professional Service

2019 Co-Guest Editor, Algorithms (Open Access Journal)
Special Issue on "New Frontiers in Parameterized Complexity and Algorithms".

2020—2023 Council Member, Indian Association for Research in Computing Science (IARCS)

2020—2022 Member of the ACM Internal Affairs Committee

2019—2022 Steering Committee Member: ACM-India Summer and Winter Schools

2019—Present Member, ACM-W India Council

Grants

2022 Google exploreCSR grant
for supporting the training of interns.

2019 Computational Aspects of Social Choice: Theory and Practice,
SERB Early Career Research Grant.

2018 Extremal Partial VC-Dimension and Fine-Grained Fold-Cut Problems,
SERB MATRICS Grant.

2012 Parameterized Methods in Bioinformatics, DST-INSPIRE Grant.

Events and Outreach

2022 Organizer: Dynamic Programming Bootcamp for Competitive Programming by Priyansh Agarwal (IIITD)

2022 Organizer: A short course on the Fundamentals of Science Communication by Siddarth Kankaria (NCBS)

2022 Local Coordinator, GIAN Course on Randomized Methods in Parameterize Algorithms by Daniel Lokshtanov (UCSB)

2022 Co-organizer of the Dagstuhl Seminar 21051 on Vertex Partitioning in Graphs: From Structure to Algorithms

2020 Organizer: Third ACM-India Grad Cohort

2020 Scientific Coordinator of the online workshop on Parameterized Complexity 301

2020 Scientific co-ordinator of the workshop Parameterized Complexity 201 at IISER Pune

2020 Organizer: 14th ACM-India Inter-Research-Institute Student Seminar in CS

2020 Organizer: ACM-India Annual Event

2020 Co-Organizer: ACM-W Workshop for Women in Computer Science and Research

2019 Coordinator: ACM-W Summer School on Algorithmic Game Theory

2017 Local Coordinator, GIAN Course on Pattern Matching Algorithms by Amihood Amir (Bar-Ilan University)

2017 Local Coordinator, GIAN Course on Computational Social Choice by Edith Elkind (University of Oxford)

2017 Co-coordinator, ACM-Summer School on Graph Theory and Graph Algorithms

2016 Co-Organizer, NMI Workshop on Complexity Theory

2016 Coordinator, TEQIP Summer School on Design and Analysis of Algorithms

2010 Co-Organizer, IMSc Open Day

2006 Co-Organizer, FOSS.MCC — an outreach event focused on spreading awareness about open source culture at Mount Carmel College