

# Prathamesh P. Mayekar

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| CONTACT INFORMATION            | ECE SP Building, SP 1.17,<br>Indian Institute of Science.  | prathamesh@iisc.ac.in<br><a href="http://ece.iisc.ac.in/mayekarppp">http://ece.iisc.ac.in/mayekarppp</a> |
| RESEARCH INTEREST              | Information Theory, Optimization, Applied Probability and Statistics.  |  |
| EDUCATION                      | <b>Indian Institute of Science</b> , Bengaluru,<br><br>Ph.D., Electrical and Communication Engineering <i>July'16-Present</i> <ul style="list-style-type: none"><li>• Thesis Topic: <i>Optimal Communication for Timely Updates and Distributed Learning</i></li><li>• Adviser: Himanshu Tyagi</li><li>• CGPA: 9.25/10</li></ul> <b>Indian Institute of Technology Bombay</b> , Mumbai,<br><br>M.Tech., Industrial Engineering and Operations Research <i>July'13-June'15</i> <ul style="list-style-type: none"><li>• Thesis Topic: <i>Multi-armed Bandit Approach to Dynamic Pricing</i></li><li>• Adviser: N. Hemachandra</li><li>• CGPA: 9.44/10</li></ul> <b>K.J.Somaiya College of Engineering</b> , Mumbai,<br><br>B.E, Electronics and Communication Engineering <i>July'09-June'13</i> <ul style="list-style-type: none"><li>• Percentage: 64.5%</li></ul> |  |
| INDUSTRIAL EXPERIENCE          | <b>Tata Consultancy Services</b> , India<br><br>Researcher at TCS Innovation Lab (TRDDC), Pune <i>July'15-July'16</i> <ul style="list-style-type: none"><li>• Conducted research in the area of supply-chain systems, IT system using various techniques in operations research.</li><li>• Incorporated this research in various products and services of the company.</li></ul>   |  |
| AWARDS                         | <ol style="list-style-type: none"><li>1. Recipient of the Wipro PhD. Fellowship, Indian Institute of Science, 2019.</li><li>2. Recipient of the Jack Keil Wolf Student Paper Award (Best Student Paper Award) at International Symposium on Information Theory (ISIT), 2018, Colorado, USA.</li></ol>  |  |
| JOURNAL PUBLICATIONS           | <ol style="list-style-type: none"><li>1. <b>P. Mayekar</b>, and H Tyagi. <i>RATQ: A Universal Fixed-Length Quantizer for Stochastic Optimization</i>, submitted to IEEE Transactions on Information Theory.</li><li>2. <b>P. Mayekar</b>, P Parag, and H Tyagi. <i>Optimal Source Codes for Timely Updates</i>, submitted to IEEE Transactions on Information Theory.</li></ol>  |  |
| RECENT CONFERENCE PUBLICATIONS | <ol style="list-style-type: none"><li>1. <b>P. Mayekar</b>, P Parag, and H Tyagi. <i>Optimal Lossless Source Codes for Timely Updates</i>, in proceedings of International Symposium on Information Theory (ISIT), 2018, Colorado, USA.<br/><b>Jack Keil Wolf Student Paper Award</b> at ISIT 2018.</li></ol>  |  |

MAJOR  
COURSES

Real Analysis,  
Information Theory,  
Probability Theory,  
Concentration Inequalities,  
Detection and Estimation Theory,  
Topics in Information Theory and  
Statistical Learning,

Stochastic Processes and Queuing Theory,  
Optimization Techniques,  
Integer Linear Programming,  
Network Flow and Algorithms,  
Markov Decision Processes,  
Game Theory,  
Foundations of Data Science.

TEACHING  
EXPERIENCE

**Teaching Assistant**

Indian Institute of Science, Bengaluru.

- Random Processes, E2 202

*Autumn'18*

Indian Institute of Technology Bombay, Mumbai.

- Markov Decision Processes, IE 708.
- Introduction to Stochastic Models, IE 611.

*Spring'15*

*Autumn'14*

COMPUTING  
SKILLS

**Programming Languages:** Python.

**Modeling and Computational Software:** AMPL, CPLEX, Scilab, Matlab.

**Statistics and Simulation Software:** Microsoft Excel, Anylogic, SimPy.