



VIJITH KUMAR K. P.

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EDUCATION

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| PhD <i>Information Theory</i> Indian Institute of Technology, Guwahati | July 2014 – Present Assam, India |
| M.Tech <i>Microwave and Television</i> University of Kerala | July 2012 – June 2014 Kerala, India |
| B.Tech <i>Electronics and Communication</i> University of Calicut | July 2007 – May 2011 Kerala, India |

TEACHING EXPERIENCE

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|---|---|
| Peer-assisted Learning Program Indian Institute of Technology, Guwahati | July 2016 – November 2016 Assam, India |
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I was a mentor in the peer-assisted learning program for the course Electrical Sciences (EE 101) organized by IIT Guwahati during July-November 2016.

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| Teaching Assistantship Indian Institute of Technology, Guwahati | July 2014 – May 2019 Assam, India |
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Participated in the coordination of the following courses:

- Information Theory and Coding (EE 337)
- Pattern Recognition and Machine Learning (EE 626)
- Signals and Systems (EE 220)
- Electrical Sciences (EE 101)

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| Laboratory Assistant Indian Institute of Technology, Guwahati | January 2016 – July 2016 Assam, India |
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Participated in the coordination of the following Lab:

- Communication Laboratory (EE 331)

RESEARCH

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| New Results on Optimal Schemes for Coded Caching Indian Institute of Technology, Guwahati | July 2014 – Present |
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| Wavelet Based Frequency-Hopping Spread Spectrum System <i>MATLAB</i> College of Engineering Trivandrum, University of Kerala | July 2012 – May 2014 |
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PROJECTS

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| Real Time Audio Compression Using Daubechies 8-Tap Wavelet Transform College of Engineering Trivandrum, University of Kerala | January 2013 – May 2013 |
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| Autonomous Wheelchair government engineering college thrissur, University of Calicut | July 2010 – May 2011 |
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PUBLICATIONS

Conferences and Presentations

- Pareto Optimal Schemes in Coded Caching: Uncoded Prefetching** July 2021
IEEE International Symposium on Information Theory
- Towards the Exact Memory Rate Tradeoff for the (4, 5) Cache Network** July 2020
International Conference on Signal Processing and Communications
- Pareto Optimal Schemes in Coded Caching** July 2019
IEEE International Symposium on Information Theory
- Fundamental Limits of Coded Caching: The Memory Rate Pair $(K-1-1/K, 1/(K-1))$** July 2019
IEEE International Symposium on Information Theory
- Towards the Exact RateMemory Tradeoff in Coded Caching** February 2019
National Conference On Communications

Preprints

- The Exact Rate Memory Tradeoff for Small Caches with Coded Placement** February 2021
<https://arxiv.org/pdf/2102.04797.pdf>
- The Exact Rate Memory Tradeoff for Large Caches with Coded Placement** February 2021
<https://arxiv.org/pdf/2101.09785.pdf>

SKILLS

Languages: English, Malayalam, Hindi
Programming: Matlab, C, Python
Document Creation: Microsoft Office Suite, LaTeX

REFERENCES

Dr. Tony Jacob
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IIT Guwahati,
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Dr. A Rajesh
Department of Electronics and Electrical Engineering,
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Dr. Brijesh Kumar Rai
Email: brijesh.raai@gmail.com
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