COMPSIG NITT

In This Issue. . .

Dear friends! COMPSIG NITT is a monthly newsletter to share the research work done in the Pattern recognition and computational intelligence laboratory, Department of Electronics and Communication Engineering, National Institute of Technology Trichy.

Concepts, Ideas pertaining to Computational intelligence, Pattern recognition and Signal processing are also included in this newsletter.

We expect the feedback, comments and articles from you all.
Issue 2-10: October 2016

Team members

1. **Dr.E.S.Gopi,Co-ordinator**
2. **G.JayaBrindha, Ph.D. Scholar.**
3. **Neema.M, Ph.D. Scholar.**
4. **Rajasekharreddy Poreddy, Ph.D Scholar.**
5. **Florintina.C, M.Tech, Communication systems.**
6. **Ankur Satpute, M.Tech, Communication systems.**

Visit of Prof.Dr. Andrew Thangaraj, Indian Institute of Technology, Madras to NITT

Esteemed Prof. Dr. Andrew Thangaraj, Professor, Department of Electrical Engineering, IIT Madras, Chennai, delivered a guest lecture on, **An Invitation to Research in Information Theory** as a part of celebrating Claude Elwood Shannon's 100th Birthday on 10/10/2016. Information theory had a significant evolution since Shannon's famous 1948 paper. Claude Shannon's clever electromechanical mouse, which he called Thesus, was one of the earliest attempts to "teach" a machine to "learn" and one of the first experiments in artificial intelligence.

He discussed about recent research in information theory of communication systems and various problems and scenarios that are still open and might arise in future communication networks. In the first part of his talk, we had a brief presentation on some recent research results in the areas of capacity of quantized ISI channels and capacity of noisy constrained channels done at the electrical engineering department of the Indian Institute of Technology (IIT) Madras. In the second part, the topic of online algorithms for base station allocation was elaborated in detail. Starting with the classic secretary problem, the idea of online algorithms was introduced, which process inputs one at a time.

Link to the slide: Slide

Link to the photographs: Photographs

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The talk was concluded with the research opportunities available in the areas of information and coding theory in India, and particularly at the IIT Madras. Following the guest lecture, Prof. Dr. Andrew Thangaraj had a discussion with the M.S and M.Tech students about their projects.

ILLUSTRATION

Actual signal transmitted after cyclic prefix

Signal to be transmitted
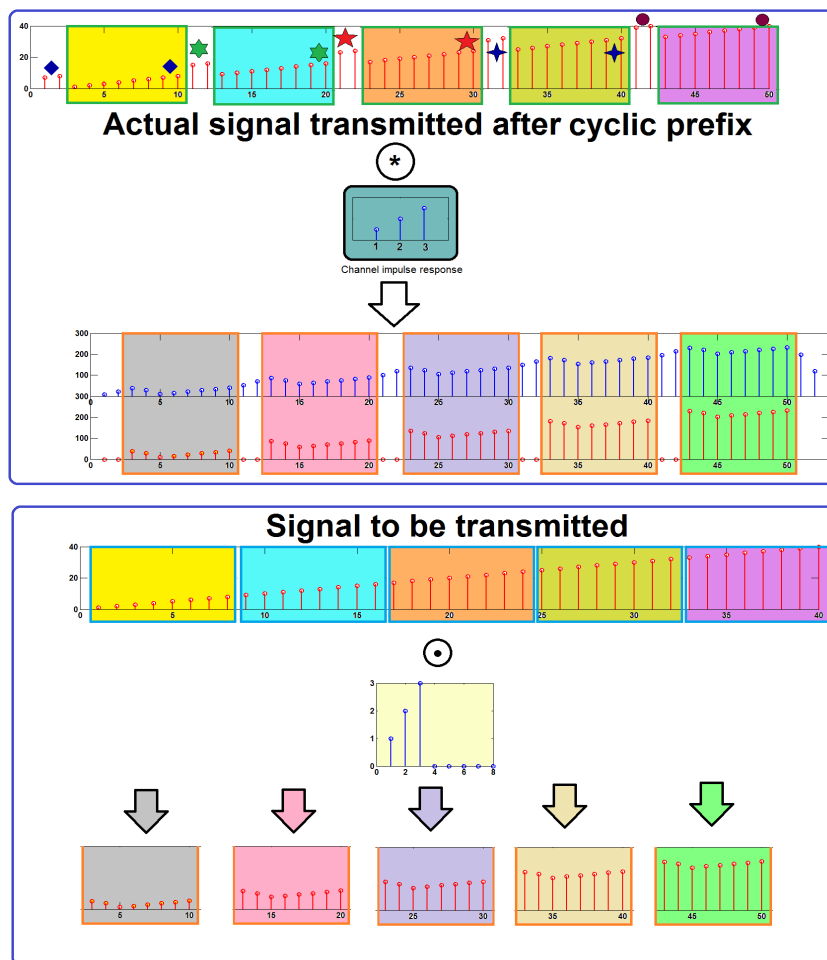
This demonstrates the usage of cyclic prefix in OFDM.

Quotes

"You were born with wings. Don't crawl. Learn to use them to fly and fly." — Dr. A.P.J.Abdul Kalam

Coming up Global elective: PATTERN RECOGNITION (EC 009)

- Summarize the various techniques involved in pattern recognition.
- Identify the suitable pattern recognition techniques for the particular applications.
- Categorize the various pattern recognition techniques into supervised and unsupervised.
- Summarize the mixture models based pattern recognition techniques.
- Summarize the artificial intelligence based pattern recognition techniques.

Tentative evaluation scheme(weightage)-Under flexible curriculum structure.

- Cycle test 1 - 15%
- Cycle test 2 - 15%
- Matlab simulation experiment - 40%
- End semester exam - 30%

Expression of interest through esgopi@nitt.edu

Feedback

COMPSIG NITT invites articles and innovative ideas from readers for the Reader's Space column. We expect feedback and comments to monthly newsletter COMPSIG NITT . A facebook group, "COMPSIGNITT" is created for the readers to share their views. Those who are interested can send requests to the facebook group.

Contact Information:

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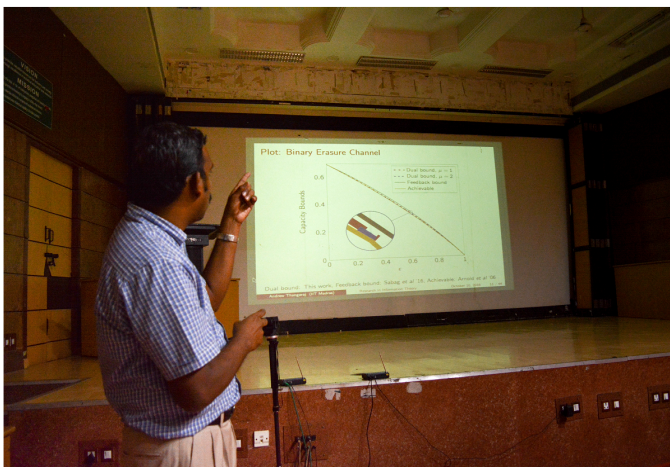
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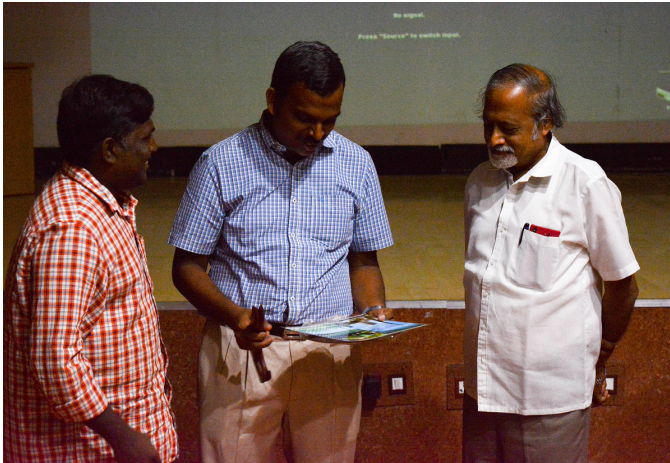
Professor presenting the memento

With third year B.Tech (ECE)

Snapshot of the guest lecture

Audience listening to the lecture

Interaction with the Scholars and the M.tech students

Students getting their doubts clarified