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.

Volume 6, Issue 4: April 2020

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. Vinodha K, Ph.D Scholar.
6. Shailendra Singh, M.Tech, Communication systems.
7. Mayank Lauwanshi, M.Tech, Communication systems.

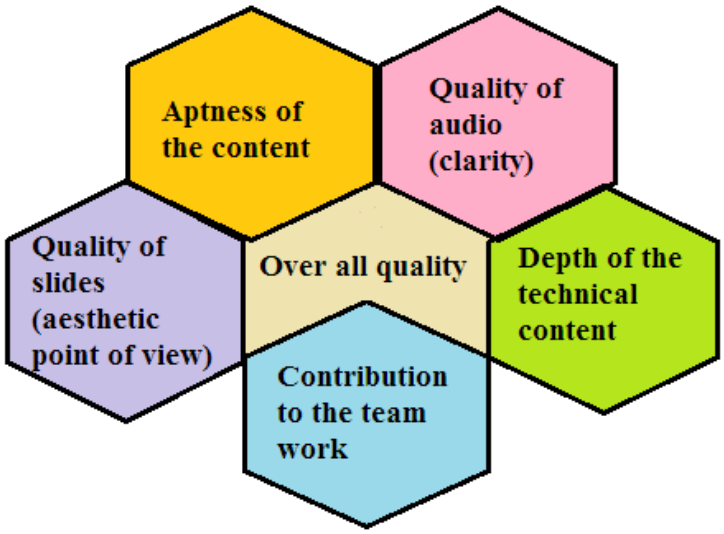
Scan the QR code for previous issues of our newsletter

"Audio Slide Evaluation" since 2016

Virtual Teaching, Virtual Evaluation, Virtual Reviews are becoming integral part of our Education system. In this section, we would like to share one of the effective online evaluation methodology being in practice for the courses handled by the co-ordinator Dr.E.S.Gopi, Associate professor, Department of ECE since 2016.

The students are asked to prepare audio slide as a part of the course evaluation scheme. The distinct topics related to the corresponding courses are assigned to the individual group (with 3 to 4 students per team) or the individual student. They are further asked to prepare and present audio slides. In order to ensure the fairness of evaluation, peer opinion on each audio slide was also collected from randomly chosen five other batches in addition to faculty's evaluation. Each batch was encouraged to use different tools for audio slide preparation. Evaluation strategy is as illustrated below.

Evaluation Strategy



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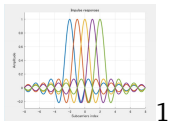
Snapshot along with link to audio slides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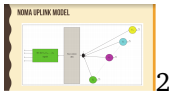

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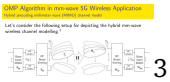
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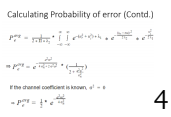

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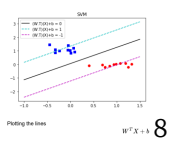

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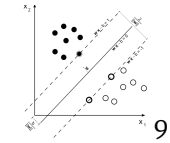
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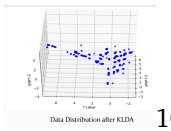

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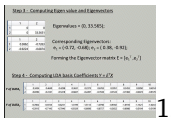
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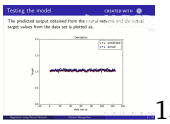

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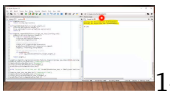
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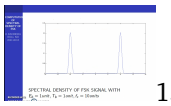
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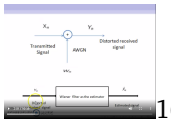

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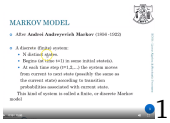

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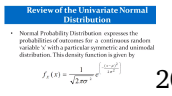

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2020

1. Rayleigh flat fading attained using OFDM
2. Computation of SINR for uplink non-orthogonal multiple access
3. Orthogonal matching purist(OMP)
4. Probability of error for rician model
5. DSP for Wicomm
6. Spectral density of inphase and quadrature components from spectral density of bandpass signal

2019

7. Principle component analysis(PCA)
8. Linear discriminate analysis (LDA)
9. Support vector machine

2018

10. Banknote authentication using PCA and SVM
11. KLDA with SVM
12. WIFI indoor localization using KLDA(dimensionality reduction)and probabilistic approach

2017

13. Regression using neural network
14. Occupancy detection dataset classification problem

2016

15. Computation of spectral density
16. FIR wiener filter
17. Computation of spectral density of QPSK signal
18. Bayes detection for binary channel
19. Hidden markov model
20. Generation of multivariate Gaussian density function with particular mean vector and converiance matricx

Quotes

> *"My message, especially to young people is to have courage to think differently, courage to invent, to travel the unexplored path, courage to discover the impossible and to conquer the problems and succeed. These are great qualities that they must work towards. This is my message to the young people" — Dr.A.P.J.Abdul Kalam*

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On-going Research

- Investigating Regression techniques for solving the sunflower leaf segmentation problem
- Application of machine learning techniques in next generation wireless communication
- Classification of Music composition styles using probabilistic generative model
- Engine health monitoring using Machine learning, Deep learning and Computational intelligence
- Power allocation & Capacity maximization in NOMA using computational intelligence
- Millimeter wave channel estimation using computational Intelligence

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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 . Readers can share their views in our facebook page, COMPSIG-NITT. Those who are interested can be a part of the facebook group.

Follow us on Research gate: COMPSIG NITT

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