KODATHALA SAI VARUN

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PARTICULARS

EDUCATION

GITAM Deemed to be University — Bengaluru, India
B. Tech. in Electronics and Communication — *June 2021*
CGPA: 9.52/10 (Gold Medalist)

Board of Intermediate Education — Visakhapatnam, India
Percentage: 95.1% — *March 2017*

Board of Secondary Education — Visakhapatnam, India
CGPA: 8.8/10 — *March 2015*

RESEARCH INTERESTS

My research interests span the areas of neural networks, machine learning and digital image processing. I have a specific interest in algorithms for image restoration, steganography and computational techniques.

B.TECH DISSERTATION

Title: Robust digital image watermarking based on iterative blending and enhanced embedding factor
Advisor: Dr. Ajay Kumar Mandava

Part of the research, developed a robust and optimised algorithm for copyright protection of digital multimedia in wavelet domain which gave performance guarantees under different attacks.

PROJECTS

- **AI enabled quick cricket match highlights**, June 2020 - Nov 2020. Developed an algorithm which indentifies important moments of a cricket match and perform video summarization.
- **Automated American sign language translator**, Mar 2020 - April 2020. Developed a system that recognise American sign language (Alphabets) from live feed and translates the text to audio.
- **Hybrid algorithm for transcendental equation's solution**, Dec 2019 - Feb 2020. Optimised the number of iterations required to determine the root of transcedental equation by combining multiple open methods and bracketing methods.
- **Simulation of Power Factor Correction**, May 2019 - Sep 2019. Simulated the performance of circuit enhanced by power factor correction by maintaining balance between lag and lead current drawn by the load.

WORK EXPERIENCE

- **Artificial Intelligence Engineer, Orbitshifters Inc., USA**, May 2020 - Present. Developed robust computer vision algorithms to automate the combat sports analytics and generate advanced insights.
- **Intern, Bharat Sanchar Nigam Limited, India**, Jan 2019. Analysed the performance of Advanced digital switching systems at RTTC, Mysore.
- **Intern, JK Paper Limited, India**, May 2018. Explored the mechanism of electrical and instrumentation equipments.

ACADEMIC HONORS

- Distinguished Student Award'18 under RULA International Awards, August, 2018.
- President Gold Medal for overall First Ranker from all Branches of Bachelors, September, 2021.
- President Gold Medal for First Ranker in B.Tech., September, 2021.

PUBLICATIONS

PUBLISHED PAPERS

1. *(Accepted)* Kodathala Sai Varun, Ajay Kumar Mandava, Rakesh Chowdary, "Robust DWT-SVD Domain Image Watermarking based on Iterative Blending", To be appeared in *IOP Science : Journal of Physics (JPCS)*, 2021.

2. Kodathala Sai Varun, K A Kumar, G S M Basha, V R Chowdary. , "Morphological Cancer Cell Diagnosis: Applying Contemporary Method of Image Processing", *Journal of Emerging Technologies and Innovative Research*, Mar. 2019.

3. Kodathala Sai Varun, K A Kumar, G S M Basha, V R Chowdary., "Mathematical approach to modern encryption and decryption using laplace transform", *International journal of research and analytical reviews*, Mar. 2019.

4. Kodathala Sai Varun, K A Kumar, V R Chowdary, C. S. K. Raju, "Water Level Management Using Ultrasonic Sensor(Automation) ". *International Journal of Computer Sciences and Engineering*, June. 2018.

5. Kodathala Sai Varun, K A Kumar, V R Chowdary, C. S. K. Raju, "A Perceptive Model of Traffic Flow: Using Arduino Board", *Advances in Physics Theories and Applications*, Jan. 2018.

6. Kodathala Sai Varun, K A Kumar, V R Chowdary, C. S. K. Raju, "Mathematical treatment of enzyme kinetics using differential method", *International Journal of Advance Research, Ideas and Innovations in Technology*, Jan. 2018.

PRESENTATIONS

CONFERENCE PRESENTATIONS

1. "Robust DWT-SVD Domain Image Watermarking based on Iterative Blending", *International Conference on Advances in Physical Sciences and Materials*, Coimbatore, India, August, 2021.

2. "Optimized Approach for Graph Coloring", *National Conference on Recent Trends in Mathematics and its Applications*, Bengaluru, India, Dec. 2019.

3. "Mathematical and Computer based Model of Web Page Ranking: A Quantitative Report on Programmatic Level of Approach", *National Conference on Recent Trends in Mathematics and its Applications*, Bengaluru, India, Dec. 2018.

4. "Mathematical Treatment of Enzyme Kinetics using Differential Methods", *International Conference on Modern Global Research in Engineering and Technology*, Perambalur, India, March 2018.

PAPER, POSTER & PROJECT PRESENTATIONS

5. *(Paper)* "Electrical Load Protection", *(SIGMOID 2K19)*, Dept. of Electronics and Communication Engineering, Sri Venkateswara University College of Engineering, Tirupati, India - March 2019.

6. *(Project)* "Mobile Operation Identification using OPAMP",*(IEEE Collegiate Circuits Design Contest)*, Dept. of Electronics and Communication Engineering, Mahendra Engineering College, Namakkal, India - January 2019.

7. *(Paper)* "Mutation of Vibration Energy to Electricity using Piezo Transducers",*(ECLECTIC 2K18)*, Dept. of Electronics and Communication Engineering, SRM Institute of Science and Technology, Ramapuram, India - March 2018.

8. *(Paper)* "Transfiguration of Vibration Energy to Electricity using piezo crystals",*(TEXUS 18)*, Dept. of Computer Science and Engineering, SRM Institute of Science and Technology, Ramapuram, India - March 2018.

9. *(Poster - First Position)* "Mathematical Model of Web Page Ranking", *(National Mathematics Day 2017)*, GITAM Deemed to be University, Bengaluru, India - Dec. 2017.

HACKATHON

- NASSCOM FutureSkills Curate-a-thon on Cyber Security, Bengaluru, India, 2019.

WORKSHOPS

- Hands on Workshop on Artificial Intelligence and Deep Learning, Bennett University Noida, India, 2020.
- Project based Training Program on Sensor Guided Robotics, Skyfi Labs, Bengaluru, India, 2017.

KEY COURSES

- Image and Video Processing: From Mars to Hollywood with a Stop at the Hospital, Coursera, 2020.
- Neural Networks and Deep Learning, Coursera, 2020.

PROFESSIONAL MEMBERSHIPS

- Member, International Journal for Research Under Literal Access, 2018 - Present.
- Member, International Association of Engineers, 2019 - Present.

LANGUAGES

- Proficient in English and Telugu. Working knowledge of Hindi.

REFERENCES

FROM ACADEMIA

Dr. Ajay Kumar Mandava
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Dr. S K Raju Chakravarthula
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FROM INDUSTRY

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