

CURRICULUM VITAE

MANIE KANSAL

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CARRIER OBJECTIVE

- To acquire a stable position in an organization where I can utilize my technical and analytical skills for the welfare of an organization.
- Possess 8+ years of experience in technical field including electronics and STEM.

WORK EXPERIENCE

- Currently working at **Technoplanet Lab Pvt. Ltd.** (associated with Manav Rachna International University) as a **STEM EDUCATOR** to train the students on **multidisciplinary engineering concepts**.
- Also associated with **online platforms (part time)** as **Technical Trainer** to train the international students online **on Advanced Arduino, Lego mindstroms, and HTML and CSS**.
- Previously associated with teaching (both technical and non technical) at online platform at **Unacademy, Chegg Tutorials**.
- **Technical Instructor** at **Early Engineers Pvt. Ltd.** to train the children on **game designing skills** using softwares like **Scratch; Mobile app inventor, Lego Robotics, Wedo, Arduino**, Civil and aerospace engineering experiments. (**April, 2018 – June, 2018**)
- **Assistant Professor** at **Lovely Professional University, Punjab** in **Electronics and Communication Department** (from **July 2011 to April 2017**)
 - Job Summary:
 - ✓ Took technical courses of electronics and electrical engineering where my area of specialization is semiconductors and its devices along with its relevant practical courses.
 - ✓ Mentored several capstone projects and dissertation students on different topics.
 - ✓ Worked as **DAA nominee**, admission runner and taken other various responsibilities in the University.

STEM SKILLS

- Scratch – 2D designing skills of games and animations.

- Python Programing.
- Online editor- p5.js
- Mobile app inventor- Development of apps on Mobile.
- Lego robotics.
- Arduino.
- Basics of 3D printing- Designing of different objects in 3D in Tinker cad, Autodesk fusion 360.

AREAS OF EXPERTISE

- Basic Electronics and Electrical Engineering
- Semiconductor Devices and Circuits
- Analog and Digital Electronics
- Digital Signal Processing
- Industrial Automation and Experiential Learning
- Artificial Intelligence including Fuzzy Logic and Neural Networks
- Quantitative Aptitude
- Logical Reasoning(Verbal/Non Verbal)
- Practical labs on all above mentioned technical courses.

PROJECTS AND DISSERTATIONS SUPERVISED

Supervised 7 dissertations students as a mentor to guide them for their research work.

- DCT and thresholding based Video Watermarking.
- Robust Digital Image Watermarking Invariant to various Geometric and Noise Attacks.
- Improved image watermarking using DWT with predictive coding for hiding the encrypted watermark
- Plant identification from leaf image using image descriptors.
- Analysis of Papaya on the basis of its Physical Characteristics using MATLAB.
- Comparative Analysis of Error Correcting Codes.
- Comparison of different Benchmarks and implementation of New Benchmark for Image Watermarking.

Capstone Projects Supervised

- Self Balancing Segway using Arduino and Gyroscope
- Voice Controlled Home Automation using Android Application
- Wireless Controlled Flexible Hexapod
- Smart Classroom System based on Raspberry Pi
- Image De-noising using MATLAB
- Gesture Recognition through Image Processing
- Image Processing based Robot

- Image Compression using MATLAB.

PUBLICATIONS

- Research paper published on “Combined Classifier for Plant Classification and Identification from Leaf Image based on Visual Attributes”- International Conference on “Intelligent Circuits and Systems ICICS 2018” , held at Lovely Professional University, Phagwara, Punjab (India) on 20-21 April 2018.
- Research paper published on “Improved Image Watermarking using DWT with Predictive Coding for Hiding Encrypted Watermark”- International Journal of Advanced Computational Engineering and Networking, ISSN: 2320-2106, Volume-5, Issue-9, Sep.-2017.
- Research paper published on “DWT, DCT and SVD based Digital Image Watermarking”, --International Conference on Intelligent Circuits and Systems (ICICS- 2016) at LPU on November 18-19th, 2016.
- Research paper published on “DWT, DCT and SVD based Improved Digital Image Watermarking”, at TURING100 – International Conference on Computing Sciences (ICCS) explored in IEEE held at Lovely Professional University (14-15 September, 2012).
- Research paper published on “A User Friendly GUI Based Benchmark for Image Watermarking” at TURING100”– International Conference on Computing Sciences (ICCS) explored in IEEE explore held at Lovely Professional University (14-15 September, 2012).
- Research paper published on, “DCT and Thresholding based Digital Video Watermarking”, in International Journal of Applied Information Systems 2(6):9-12, May 2012, published by Foundation of Computer Science, New York, USA.
- Review paper published on “Digital Image Watermarking Techniques” in National Conference on “Impact Of Management and Technological Advancements In Technical Education and Industrial Sector” at “Jasdev Singh Sandhu Institute of Engineering and technology(JSSIET), Kauli, Patiala”.
- Published two chapters in the book of “Digital Electronics by GS Kalra”, 2012.
- Guided the students to work on “Networking Routing Protocols” and they published a paper on “Enhanced Comparative Study of Networking Routing Protocols ” in International Journal of Advanced Research in Computer Science and Software Engineering, 2014, IJARCSSE.

TECHNICAL SKILLS

Languages: MATLAB, Orcad, Pspice, Logixpro, Winprolog, TINA, PLC.

Computer Skills: Handling different Operating Systems, MS Office, MS-Excel, MS-Power Point.

ROLES AND RESPONSIBILITIES UNDERTAKEN AT LOVELY PROFESSIONAL UNIVERSITY

- **Contact Hours:** Rich experience in conducting on an average 23 lectures per week (including practical labs) to graduate and post graduate students on different courses every semester.
- **DAA Nominee:** Worked as DAA (Division of Academic Affairs) nominee for the quality check of classes and labs conduct and planning of programme schemes and structures.
- **Placement Enhancement classes:** Taken Placement Enhancement classes, GATE and AMCAT preparatory classes for final year students.
- **Placement Mentor:** Appointed as a Placement Mentor of 30 students for guiding them to select their carrier path and to implement the same.
- **Course Planner:** Appointed as the Course Planner and Course Co-ordinator for different course codes.
- **Chief Examiner:** Hands on experience as a Chief Examiner for the evaluation of thousands of sheets for different course codes at the same time.
- **Accreditation Co-ordinator:** Appointed as Accreditation Co-ordinator for School of Electronics and Communication.
- **Kaizen:** Worked as a team member of a committee called 'Kaizen' for the welfare of the University.
- **Admission runner:** Extensive experience of working as an admission runner for different states to check the quality of work of open camp offices of the University.
- **FDP:** Conducted and delivered Faculty Development Programs on various courses to enhance the knowledge practically. Apart from this I have attended different Faculty Development Programs on various courses.
- **Faculty coordinator:** Worked as Faculty coordinator for the student organization "Electro mania" for conducting various workshops and successfully conducted workshops on PLC and SCADA, Haptic Robotic Arm etc.
- **Paper setter:** Nominated for setting the paper for different course codes.
- **DSOC:** Handled the responsibility of Deputy Superintendent of Collection Centre during the various Examinations.
- **Flying squad:** Appointed into a team of flying squad for examination in Open Distance learning of the University.
- **Observer:** Appointed as Observer for the conduct of examination in Open Distance learning of the University.

PROJECTS AND TRAININGS UNDERTAKEN

- M.Tech Dissertation on DWT, DCT and SVD based Digital Image Watermarking using MATLAB. In this dissertation I have done research in the field of Digital Image Watermarking using different algorithms and techniques in order to enhance the existing results.
- Capstone Project on FPGA based Controller Area Network in Automobiles (CAN) in VIII semester. In this project, I along with my team members had simulated the designed conditions of CAN in Automobiles based on different priorities.
- Capstone Project on Microstrip Antenna in VII semester. In this project, I along with my team members had calculated the designing conditions for the Microstrip Antenna.
- 2 days Robotics Workshop by itrix(Bombay). In this workshop I along with my team members made a Line Following Robot.
- 6 weeks industrial training on Embedded System held at LPU. In this training I made Digital Clock.
- 15 days PCB designing training at LPU. I made 5V power supply in this training.

EDUCATION

Professional Qualification

B.Tech- M.Tech. in Electronics & Communication Engineering from Lovely Professional University, Jalandhar, with 9.33 Cgpa, 2011.

Academic Qualification

Secured 70% marks in 12th std. in C.B.S.E, 2006.

Secured 83% marks in 10th std. in C.B.S.E, 2004.

AWARDS AND HONOURS

- Awarded with the Scholarship during M.Tech for the Academic Distinction.
- Got First Prize in tech-fest(LPU) in Helicaze(quiz) in 2009.
- Got First Prize in Technical Project Exhibition in ECE tech-fest (Utkarsh) in 2008.
- Got First Prize in techfest(LPU) in Digizone(quiz) in 2008.
- Got Second Prize in techfest(LPU) in treasure hunt in 2008.
- Class Representative, 2008.
- Silver medallist in IAYP(International Award For Young People).
- Got merit rank in National Science Olympiad.
- Got merit rank in Maths Talent Search Organisation.

STRENGTH

- Punctual, hard working and honest towards work.
- Ability to motivate people.
- Ability to work under pressure.
- Good team player and quick learner.
- Good co-ordination skills and analytical skills.

PERSONAL DETAILS

Date of Birth	:	27 Oct., 1988
Father's Name	:	Sh. Jiwan Kansal
Gender	:	Female
Nationality	:	Indian
Languages Known	:	English, Hindi & Punjabi
Current Address	:	Sector 23, Gurgaon.

Date:
Place

Manie Kansal
Signature