

# ASHISH DHIMAN [Google Scholar](#), [Linkedin](#), [Orcid](#)

Algorithm Developer in Continental Automotive Group (TCI), Bangalore, India.

Email ID: [ashish.dhiman1@gmail.com](mailto:ashish.dhiman1@gmail.com), [Skype](#) : ashish120390 Contact: +91- 9582988707

---

## PUBLICATIONS

### ✓ JOURNALS

- “An Intelligent Adaptive Performance Sensitive Virtual Reality based Gaming Platform for Upper Limb”, Computer Animation and Virtual Worlds, Wiley Online Library, (**Rank- B, ERAID – 18058**).
- “A proposed unified framework for the recognition of human activity by exploiting the characteristics of action dynamics” Robotics and Autonomous Systems, (**Rank-A, ERAID – 3623**).
- “Unified framework for human activity recognition: An approach using spatial edge distribution and  $\mathcal{R}$ -transform” AEU-International Journal of Electronics and Communications, (**Rank-C, ERAID – 41029**).
- “Human motion analysis by fusion of silhouette orientation and shape features” Procedia Computer Science.

### ✓ CONFERENCES

- “Design of adaptive haptic-enabled virtual reality-based system for upper limb movement disorders: a usability study” (BioRob), (**IEEE-Rank- B, ERA**).
  - “2D non-linear state optimization using evolutionary techniques” (**IEEE**).
  - “De-noising of Audio Signal using Heavy Tailed Distribution and comparison of wavelets and thresholding techniques” (**IEEE**).
- 

## PATENTS

- **Accepted for Patent Filing by Continental Organization)**
  - **European Patent Application** – Ashish Dhiman, Deepak Reddy, Radhika Ramachandran, Senthil Ponkumar, “Method and System for Recognizing and Classifying Restricted Road Signs for a Vehicle Automation System”/ 202003412 (IP56975- 2020) [ **In filing process**]
  - **European Patent Application** – Ashish Dhiman, Deepak Reddy, Prashant Bhatt, Senthil Ponkumar, “A method for recognizing disabled Traffic sign”/2021E00711 IN [ **patent drafting on going**]
- 

- **Media Coverage** - Augmented video games can help in stroke recovery: study ([Link1](#); [Link2](#))
- 

## EDUCATION

Master of Technology (2012-14)	<u>Delhi Technological University, Delhi, India</u> ( <a href="#">Ranking</a> ) <b>Degree:</b> Signal Processing & Digital Design	Score: 8.68 out of 10 ( <b>Top 5% out of 30</b> )
Bachelor of Engineering (2007-11)	<u>Panjab University, Chandigarh, India</u> ( <a href="#">Ranking</a> ) <b>Degree:</b> Electronics & Communication	( <b>First Division</b> )

## TECHNICAL SKILLS

Programming:	C/C++, Python, Matlab,
Toolbox:	Image Processing, Signal processing, Computer vision and Machine Learning
Operating Systems:	Windows, Mac OS X
Tools:	Latex, Microsoft Visual Studio, IBM Rhapsody, Doxygen, QAC, Code Composer Studio5, Vizard, Google Sketchup, Dip Trace
Assembly Language:	Microprocessor and Microcontroller

## WORK/ RESEARCH EXPERIENCE

Organization	Position/Projects
(Jul'16 – present) Continental Automotive Components (India) Pvt. Ltd, Bangalore, India	<p align="center"><b><u>Project 1: - (July'18 – Present)</u></b></p> <p><b>Computer vision Group- Traffic Sign recognition Team</b></p> <p><b>Role:</b></p> <ul style="list-style-type: none"> <li>➤ Detections and classification of Supplementary text signs, color dependent implicit signs.</li> <li>➤ Development of machine learning algorithms like Automata and Bag-of-words-approach for different signs across the countries.</li> <li>➤ Worked on in designing QT- python based framework for my Team.</li> </ul> <p><b>Client: Mazda, Ford</b></p> <p align="center"><b><u>Project 2: - (Jul'16 – July'18)</u></b></p> <p><b>Radar detection Group– Stationary Grid Processing team</b></p> <p><b>Role:</b></p> <ul style="list-style-type: none"> <li>➤ Detection and Classification of stationary patterns like Traffic signs, Traffic jam, Stationary vehicle, Road Lanes, Car Park area, Tunnel detection etc., based on Pattern Recognition/Image processing algorithms.</li> <li>➤ Experience in Simulation of Radar signals for testing signal processing blocks, and feature functions.</li> </ul> <p><b>Client: Toyota, Ford, Volkswagen, BMW</b></p> <ul style="list-style-type: none"> <li>➤ Awarded the certificate of appreciation for car park features extraction.</li> </ul>
<p><b><u>(Research Experience)</u></b></p> <p>Indian Institute of Technology, Gandhinagar, Gujarat, India</p> <p>(Jan'15 – Jun'16)</p>	<p align="center"><b><u>Junior Research Fellow (Research)</u></b></p> <p><b>Project 1: Stroke Rehabilitation platform for Elderly. (1- year Project)</b></p> <ul style="list-style-type: none"> <li>▪ <b>Funded by:</b> Department of Science and Technology (SEED), Government. India</li> </ul> <p><b>Project 2: Gait Rehabilitation-A novel approach in Neuro-rehabilitation.</b></p> <ul style="list-style-type: none"> <li>▪ <b>Funded by:</b> Department of Science and Technology (SEED), Govt. India - A*Star, Singapore Project</li> </ul> <p><b>Contribution in Projects:</b></p> <ul style="list-style-type: none"> <li>➤ Design and development of Multimodal adaptive Bio-feedback control system for the stroke patients based on Signal processing.</li> <li>➤ Interface Haptic (Phantom Omni) device/ Split belt Treadmill to Virtual Reality gaming platform.</li> </ul>
Blue Star Pvt. Limited, Kala Amb, Himachal Pradesh, India (Aug'11-Jul'12)	<p align="center"><b><u>Graduate Engineer Trainee</u></b></p> <p><b>In charge of:</b></p> <ul style="list-style-type: none"> <li>➤ Trainee in manufacturing and maintenance department.</li> <li>➤ Manufacturing of PCB design of various Electronic circuits.</li> </ul>

---

## COURSES

- Completed '**Programming for Everybody (Getting Started with Python)**' course organized by University of Michigan in Coursera.
- Completed '**An Introduction to Interactive Programming in Python (Part 1)**' course organized by Rice University in Coursera.
- Completed '**IBM Data Science Specialization**' course organized by IBM in Coursera.
- Completed '**Neural Networks and Deep Learning**' course organized by University of deeplearning.ai in Coursera.

---

## Honor's and awards

- Secured **98.37 percentile** in Graduate Aptitude Test Examination (GATE) held in 2012 and **awarded MHRD Scholarship for 2 years.**
  - Captain of College cricket team at University level and Represented Himachal Pradesh (National Level) cricket team 5 times at National Level.
-