

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

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

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PATENTS

- **European Patent Application**
- **Dhiman, A.**, Reddy D., Ramachandran R., Ponkumar S., “Method and System for Recognizing and Classifying Restricted Road Signs for a Vehicle Automation System” (IP56975- 2020) [**In filing process**]
- **Dhiman, A.**, Reddy D., Bhatt P., Ponkumar S., “A method for recognizing disabled Traffic sign”/2021E00711 IN (SG) / COE [**patent drafting on going**]
- Palavalli H., **Dhiman A.**, Sulabhavi S., Garg V., “A methodology for element wise track accumulation for recognizing traffic signs / 2021E01251 IN (SG) / COE” [**patent drafting on going**]

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” (Bio Rob), (**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**).

EDUCATION

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

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 StudioV5, Vizard, Google Sketchup, Dip Trace
Assembly Language:	Microprocessor and Microcontroller

Current Experience:

Organization	<u>Project 1: - (July'18 – Present)</u>
(Jul'16 – present) Continental Automotive Components (India) Pvt. Ltd, Bangalore, India	Computer Vision group- Traffic Sign Recognition Role: <ul style="list-style-type: none">➤ Detections and classification of Supplementary text signs, color dependent implicit traffic signs.➤ Development of machine learning algorithms like Automata and Bag-of-words- approach for different signs across the countries.➤ Worked on in designing QT- python based framework for my Team. Client: Mazda, Ford, Daimler
	<u>Project 2: - 2years</u> Radar detection Group– Stationary Grid Processing team Role: <ul style="list-style-type: none">➤ 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.➤ Experience in Simulation of Radar signals for testing signal processing blocks, and feature functions. Client: Toyota, Ford, Volkswagen, BMW

Past Experience

(Research Experience) (Jan'15 – Jun'16)	<u>Junior Research Fellow</u> Indian Institute of Technology, Gandhinagar, Gujarat, India
	Project 1: Stroke Rehabilitation platform for Elderly. (1- year Project) Funded by: Department of Science and Technology (SEED), Government. India Project 2: Gait Rehabilitation-A novel approach in Neurorehabilitation. Funded by: Department of Science and Technology (SEED), Govt. India - A*Star, Singapore Project
(Industry Experience) (Aug'11-Jul'12)	<u>Graduate Engineer Trainee</u> Blue Star Pvt. Limited, Kala Amb, Himachal Pradesh, India

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