

ASHUTOSH MISHRA

Address 175-C Regent
Shipra Suncity, Indrapuram
GHAZIABAD UP(INDIA)

Telephone  +91 9312822441

Email  ashutoshdtdu@outlook.com

+ PROJECTS

OBJECT RECOGNITION SOFTWARE BASED ON HTM	<ul style="list-style-type: none">• <i>Designing</i> an Object Recognition Software which is based on the Hierarchical Temporal Memory concept by Jeff Hawkins.
AUTONOMOUS QUADCOPTER	<ul style="list-style-type: none">• <i>Designing</i> an Quadcopter which uses Kinect and other sensors to navigate autonomously in indoor environment.
LINE FOLLOWING ROBOT FOR FREESCALE CUP	<ul style="list-style-type: none">• Designed a robot that uses line camera to follow a line using reinforcement learning for Freescale Cup 2012 competition.
FACE TRACKER	<ul style="list-style-type: none">• Developed a robust software that combines Haar classifier and CamShift algorithm to extract and track face in real time on PC.
SKIN COLOR DETECTOR	<ul style="list-style-type: none">• Developed an algorithm that uses face pixels detected by Haar classifier to build color classifier for skin. This makes it immune to unusual lighting conditions and color balances.
HAND TRACKER	<ul style="list-style-type: none">• Developed a robust software that combines Haar classifier, stereo vision, and CamShift to extract and track hand in real time on PC.
STEREO CORRESPONDENCE SOFTWARE	<ul style="list-style-type: none">• Developed a software that can perform NCC based stereo correspondence in real time on images as large as 320x240 pixels.
LETTER EXTRACTION ALGORITHM	<ul style="list-style-type: none">• Developed an algorithm that can extract letters from images taken from UAV. (This was a task at the AUVSI competition)
GESTURE CONTROLLED MOUSE	<ul style="list-style-type: none">• Developed a software in MATLAB lets users use hand gestures to perform simple operations like left click, right click and double click.

+ RESEARCH

HIERACHICAL TEMPORAL MEMORY	<ul style="list-style-type: none">• Working on Hierarchical Temporal Memory based cortical learning algorithm.
STEREO VISION	<ul style="list-style-type: none">• First Author of the paper entitled "Color Based Stereo Correspondence algorithm with Adaptive Local Support" selected for publication in IEEE SSCI 2013 conference proceedings.

+ EDUCATION

2010 - 2014	DELHI TECHNOLOGICAL UNIVERSITY		
	B.Tech., Computer Science and Engineering	AGGREGATE	65.49 %
2008 - 2010	SOMERVILLE SCHOOL		
	Class 12, CBSE Board	PERCENTAGE	83 %
2006 - 2008	JYOTI NIKETAN SCHOOL		
	Class 10, ICSE Board	PERCENTAGE	92 %

+ SKILLS

Operating systems	UNIX, Linux, Windows
Languages	C, C++, MATLAB
Libraries	OpenCV, OpenMPI, OpenCL, OpenGL
Research Interests	Image Processing, Machine Vision, Machine Learning, Cortical Algorithms, Hierarchical Temporal Memory
Programming Skills	Parallel Programming using MPI, GPGPU programming using OpenCL.