N DINESH REDDY

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EDUCATION

JAN '17 - CURRENT	Master of science in robotics, **CMU RI**, USA Thesis: "Muti-camera dynamic scene understanding and reconstruction" Advisor: Prof. Srinivasa Narasimhan
DEC '13- MAR '16	Master of Science in Computer Science, **IIIT-Hyderabad**, INDIA Thesis: "Semantic scene understanding of Dynamic scenes" Advisor: Prof. K Madhava Krishna
AUG '09 - AUG '13	Bachelor of Engineering (hons) in EEE, **BITS-Pilani**,INDIA Thesis: "Low cost blood sugar sensor for rural poupulation" Advisor: Prof. Suman Kapur

RESEARCH EXPERIENCE

JAN '17 - CUR	Graduate Research Assistant, **ILIM Lab, CMU, USA** Project: Analyzing multi-camera based reconstruction methods for intersection analysis. Consequently creating a virtual time machine to browse through events Advisor: Prof. Srinivasa Narasimhan
MAR '16 - DEC '16	PHD Intern, **Max Planck institute for intelligent systems, Germany** Project: Learning reconstruction using deep neural networks. leveraging advances in neural networks for accurate large scale reconstructions Advisor: Dr. Andreas Geiger
AUG '13 - MAR '16	Graduate Research Assistant,**RRC, IIIT hyderabad, INDIA** Project: Exploiting Semantic Information for Accurate Segmentation, Localization in Dynamic Environments. Helping in autonomous navigation of challenging environments Advisor: Prof. K Madhava Krishna
JAN '13 - AUG '13	Undergraduate Research Assistant,**Biology lab, BITS-Pilani, INDIA** Project: Creating low cost medical products for indian rural population.Worked on 2 rupee(5 cent) diabetic sensor currently being mass produced for rural population Advisor: Prof. Suman Kapur

PEER-REVIEWED PUBLICATIONS

N Dinesh Reddy, Iman Abbasnejad, Sheetal Reddy, Amit K Mondal and Vindhya Devalla. Incremental Real-time Multibody VSLAM with Trajectory Optimization Using Stereo Camera. *Int' Conf' on Intelligent Robots and Systems(***IROS***), 2016*. [Project]

N Dinesh Reddy*, Falak Chayya*, Sarthak Upadhyay, Visesh Chari, Zeeshan Zia and K Madhava Krishna. Monocular Reconstruction of vehicles : Combining SLAM with Shape Priors. *IEEE Int' Conf' on Robotics and Automation(***ICRA***), 2016*.[Project]

N Dinesh Reddy, Prateek, Visesh Chari and Madhava Krishna. Dynamic Body VSLAM with Semantic Constraints. *Int' Conf' on Intelligent Robots and Systems(***IROS***), 2015*. [Project]

Nazrul Athar, **N Dinesh Reddy**, K Madhava Krishna Temporal Semantic Motion Segmentation using Spatio Temporal Optimization *Int' Conf' on Energy Minimization Methods in Computer Vision and Pattern Recognition (***EMMCVPR***), 2017.***(ORAL)**

Nazrul Athar, **N Dinesh Reddy**, K Madhava Krishna Monocular Semantic Motion Segmentation using Dilated Convolutions *Int' Conf' on Computer Vision Theory and Applications (***VISAPP***), 2017.*[Project] **(ORAL)**

N Dinesh Reddy, Prateek Singhal and K Madhava Krishna. Semantic Motion Segmentation Using Dense CRF Formulation. *Ind' Conf' on Computer Vision, Graphics and Image Processing (***ICVGIP***), 2014.* **(ORAL)** (10% acceptance rate) [Project]

Prateek Singhal, Aditya Deshpande, Harit Pandya, **N Dinesh Reddy** and K Madhava Krishna. Top Down Approach to Detect Multiple Planes from Pair of Images. *Ind' Conf' on Computer Vision, Graphics and Image Processing (***ICVGIP***), 2014.* **(ORAL)** (10% acceptance rate)

N Dinesh Reddy, Minh Vo, Srinivasa Narasimhan. CarFusion: Combining Point Tracking and Part Detection for Dynamic 3D Reconstruction of Vehicles *Int' conf' on Computer vision and pattern recognition(***CVPR***), 2018.(under review)*

N Dinesh Reddy. LSD-Net: Look, Step and Detect for Joint Navigation and Multi-View Recognition with Deep Reinforcement Learning *Int' conf' on Learning Representations(***ICLR***), 2018.(under review)*

MINI-PROJECTS AND INTERNSHIPS

- Interned at Bhilai Steel plant(May '11 - Aug '11) working on AC to DC conversion of power for engines.
- Interned at Sabre holding(Aug '12 - Dec '12) working on database management for flight scheduling.
- Interned at Simulation development division, Indian Army(May '12 - Aug '12) working on trajectory of bullet.
- A Low Cost Mini-Weather Station Texas Instruments MCU design contest.Link
- Facial Expression Detection on wild images using Active shape model under Dr. Shailesh Kumar.
- Developed the product for detecting the amount of glucose in a blood sample for 2 rupee (3.3 cents).
- Developed the product for testing the antibiotic is resistant or sensitive for urinary tract infection.
- A Quadrotor Platform For Mines detection for Indian Army.
- Line follower bot following a strip of black line with PID integration.

COMPUTER SKILLS

Programming: C/C++, CUDA, Python, MATLAB, JAVA, PL-SQL, VERILOG
Libraries: TensorFlow, Torch, OpenCV, ROS, Torch, PCL ,VLFEAT, ARDUINO.
Software packages: Xilinx, PSpice, MATLAB, Arduino IDE ECLIPSE, SQL DEVELOPER, AUTOCAD.

HONOURS AND AWARDS

- Invited talk at perceiving systems group, Max planck Institute,Tubingen on 02-10-2015
- Microsoft Research Travel grant to attend IROS 2015.
- IROS student scholarship to attend IROS 2015.
- Research Funding for masters in Robotics- 2017
- Research Funding for masters in computer science- 2014,2015
- Undergraduate merit scholarship - 2011,2012,2013
- Finalist of the TI MCU Design Contest 2012 INDIA

EXTRA-CURRICULAR ACTIVITIES

- Batmintom team member and president at BITS, IIIT and CMU.
- Active member of the IEEE student chapter and organized the IEEE Annual Conference, INDICON 2011.
- Nucleus member of the National Social Service (NSS)
- Have attended numerous Technical fests of different colleges, Technozion 2011 of NIT Warangal, Quark 2012 of BITS Goa and Magistech 2011 of MGIT Hyderabad .
- Organizing member of the cultural fest of our college, pearl 2010 and pearl 2011.