

Ravi P. Joshi

PH.D. CANDIDATE · ROBOTICIST · ML ENTHUSIAST

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Publications

JOURNAL ARTICLES [3]

A Framework for Robotic Clothing Assistance by Imitation Learning

Ravi Prakash Joshi, Nishanth Koganti, Tomohiro Shibata

Advanced Robotics (In Press) (2019). Taylor & Francis

DOI: 00.000/000-000-000

2019

Calibration and statistical techniques for building an interactive screen for learning of alphabets by children

Riby Abraham Bobby, Ravi Prakash Joshi, Subir Kumar Saha, Takafumi Matsumaru, Pratyusha Sharma, Siddhartha Jaitly

International Journal of Advanced Robotic Systems 14.3 (2017) p. 1729881417703939. SAGE Publications London, UK

DOI: 10.1177/1729881417703939

2017

Robot kinematics made easy using RoboAnalyzer software

Ratan S. Othayoth, Rajeevlochana G. Chittawadigi, Ravi P. Joshi, Subir K. Saha

Computer Applications in Engineering Education 25.5 (2017) pp. 669–680. Wiley Online Library

DOI: 10.1002/cae.21828

2017

CONFERENCE PROCEEDINGS [11]

Mouse Anatomical Cardinal Planes and Axes Towards Augmentation for Behavior Analysis

Salvador Blanco Negrete, Ravi Prakash Joshi, Rollyn Labuguen, Jumpei Matsumoto, Tomohiro Shibata

Joint 7th International Conference on Informatics, Electronics Vision (ICIEV) and 2nd International Conference on Imaging, Vision Pattern Recognition (icIVPR)

DOI: 10.1109/ICIEV.2018.8641000

Kitakyushu, Japan

2018

Robotic cloth manipulation for Clothing Assistance task using Dynamic Movement Primitives

Ravi Prakash Joshi, Nishanth Koganti, Tomohiro Shibata

Proceedings of the Conference on Advances in Robotics

DOI: 10.1145/3132446.3134878

New Delhi, India

2017

Estimating 3D Hand Location for Clothing Assistance Initialization Using Dynamic Movement Primitives

Ravi Prakash Joshi, Rithul Perathara, Rollyn Labuguen, Nishanth Koganti, Tomohiro Shibata

Proceedings of the 35th Annual Conference of Robotics Society of Japan

URL: http://rsj2017.rsj-web.org/RSJ2017_pg02.pdf

Kawagoe, Japan

2017

A Study on Human-Robot Collaboration for Table-setting Task

Krati Saxena, Rollyn Labuguen, Ravi Prakash Joshi, Nishanth Koganti, Shibata Tomohiro

IEEE International Conference on Robotics and Biomimetics (ROBIO)

DOI: 10.1109/ROBIO.2017.8324415

Macau, China

2017

Cloth Extremity Detection from a Clutter of Clothes using Bayesian GP-LVM

Vishal Gaurav, Nishanth Koganti, Riku Nakata, Ravi Prakash Joshi, Tom Shibata

International session on Robotics, Mechatronics and Control, Robotics Society of Japan

URL: http://rsj2016.rsj-web.org/data/RSJ2016_pg.pdf

Kojirakawa, Japan

2016

Virtual Experiments for Integrated Teaching and Learning of Robot Mechanics Using RoboAnalyzer

Ratan Sadanand, Ravi P. Joshi, Rajeevlochana G. Chittawadigi, Subir Kumar Saha

28th International Conference on CAD/CAM, Robotics and Factories of the Future

ISBN: 978-81-322-2740-3

Kolaghat, India

2016

Force Control of Robot Manipulator using Industrial Servo Drives

Arun Dayal Udai, Subir Kumar Saha, Ravi Prakash Joshi, Rattan Sadanand

International Conference on Evolution in Manufacturing (ICEM)

ISBN: 978-93-86256-11-9

Ranchi, India

2016

SAKSHAR: An Image-projective Desktop Varnamala Trainer (IDVT) for Interactive Learning of Alphabets

Ravi Prakash Joshi, Riby Abraham Bobby, Subir Kumar Saha, Takafumi Matsumaru

Developing Countries Forum, Robotics and Automation (ICRA), IEEE International Conference on

URL: <http://icra2015.org/conference/forums/11-conference/37-developing-countries-forum>

Washington, USA

2015

Virtual Robots Module: An Effective Visualization Tool for Robotics Toolbox

Ratan Sadanand, Rajeevlochana G. Chittawadigi, Ravi P. Joshi, Subir Kumar Saha

Proceedings of the Conference on Advances In Robotics

DOI: 10.1145/2783449.2783475

Goa, India

2015

Projectable Interactive Surface Using Microsoft Kinect V2: Recovering Information from Coarse Data to Detect Touch

Pratyusha Sharma, Ravi Prakash Joshi, Riby Abraham Bobby, Subir Kumar Saha, Takafumi Matsumaru

IEEE/SICE International Symposium on System Integration (SII)

DOI: 10.1109/SII.2015.7405081

Nagoya, Japan

2015

Depth-based Localization for Robotic Peg-in-Tube Assembly

Arun Dayal Udai, Ravi Prakash Joshi, Subir Kumar Saha

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)

DOI: 10.1109/IROS.2015.7353871

Hamburg, Germany

2015

PRESENTED (UNPUBLISHED) [2]

Extremity Detection from a Pile of Garments using Bayesian GPLVM

Vishal Gaurav, Nishanth Koganti, Riku Nakata, Ravi Prakash Joshi, Tom Shibata

Workshop on Assistive and Service Robotics in a Human Environment, Intelligent Robots and Systems (IROS), IEEE/RSJ International Conference on

URL: https://research02.jimu.kyutech.ac.jp/html/100000703_knkyu_prsn_en.html

Daejeon, Korea

2016

SAKSHAR: An Image-projective Desktop Varnamala Trainer (IDVT) for Interactive Learning of Alphabets

Ravi Prakash Joshi, Riby Abraham Bobby, Subir Kumar Saha, Takafumi Matsumaru

8th International collaboration Symposium on Information, Production and Systems (ISIPS)

URL: <http://www.waseda.jp/assoc-ics/2014/program.html>

Kitakyushu, Japan

2014

Experience

Indian Institute of Technology Delhi

New Delhi, India

SENIOR RESEARCH FELLOW

May 2014 - Aug. 2015

- Worked on the force control of a KUKA robot to perform the task of inserting a peg in a hole.
- Development of RoboAnalyzer software which helps in teaching and learning of robot kinematics and dynamics in an easier and funnier way.

Indian Institute of Technology Delhi

New Delhi, India

PROJECT STAFF

Feb. 2014 - May 2014

- Involved in a collaborative project "SAKSHAR: An Image-projective Desktop Varnamala Trainer (IDVT) for interactive learning of alphabets".
- The project aims to make primary education more attractive and fun towards the kids.

Altair Engineering

Bangalore, India

SOFTWARE QA ENGINEER

Jun. 2012 - Jan. 2014

- Successfully performed software testing such as performance, load, and functional testing of Altair Web Portal Framework and Compute Manager, a web-based interface for PBS workload manager.
- Developed a framework for automated testing of REST Services.
- Key person for guaranteeing essential functionality such as licensing of Altair Web Portal Framework.

Education

Kyutech (Kyushu Institute of Technology) Wakamatsu

Kitakyushu, Japan

DOCTOR OF PHILOSOPHY IN MACHINE LEARNING IN ROBOTICS

Present

- MAJOR PROJECT: Robotic Clothing Assistance

Kyutech (Kyushu Institute of Technology) Wakamatsu

Kitakyushu, Japan

MASTER OF ENGINEERING IN MACHINE LEARNING IN ROBOTICS

Sep. 2017

- MAJOR PROJECT: Clothing Assistance using DMP

IIITDM (Indian Institute of Information Technology Design & Manufacturing) Jabalpur

Madhya Pradesh, India

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE & ENGINEERING

Aug. 2012

- MAJOR PROJECT: Data Structure Simulator

HGSSVMIC (Hargovind Suyal Saraswati Vidya Mandir Inter College) Haldwani

Uttarakhand, India

INTERMEDIATE EXAMINATION

Jun. 2007

- MAJOR SUBJECTS: Maths, Physics and Chemistry

HGSSVMIC (Hargovind Suyal Saraswati Vidya Mandir Inter College) Haldwani

Uttarakhand, India

HIGH SCHOOL EXAMINATION

Jun. 2005

Technical Skills

Commercial Robot Used

Rethink Robotics© Baxter, Toyota© HSR, KUKA Robotics© KR 5

Programming

C/C++, Python, C#, Embedded C, Java, KUKA Robot Language

IDE

Microsoft Visual Studio, Eclipse, NetBeans, WinAVR

Tools/Libraries

LaTeX, ROS, ØMQ, PCL, OpenCV, Protocol Buffers, MATLAB

Web

Drupal, HTML, PHP, JS, JSF

OS Platform

WINDOWS (XP, 8 and 10), LINUX (Ubuntu)

Personal Information

Date of Birth August 7, 1990

Languages Hindi, English, Japanese (Beginner)

Honors & Awards

2017 **First prize**, HEBI Robotics Hackathon at Kyutech

Japan

2016 **Excellent Paper Award**, 10th International collaboration Symposium on IPS at Waseda University

Japan

2015 **MEXT Scholarship**, Ministry of Education, Culture, Sports, Science and Technology of Japan

Japan

2015 **Successfully completing Mechanics of Robots**, Classroom course by Prof. S. K. Saha, IIT Delhi

India

2015 **MOOC on Image Processing**, Prof. G. Sapiro, Duke University, USA

India

2012 **MOOC on Computer Networks**, Prof. N. McKeown, Stanford University, USA

India