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 0.0 (2019) pp. 1–19. Taylor & Francis
DOI: 10.1080/01691864.2019.1636715

2019

Calibration and statistical techniques for building an interactive screen for learning of alphabets by children
Riby Abraham Boby, 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, Rolyn 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 Boby, 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 Boby, 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 Envionment, Intelligent Robots and Systems (IROS), IEEE/RSJ International Conference on
 URL: `https://research02.jimu.kyutech.ac.jp/html/100000703_knkyu_prsn_en.html`

<div align="right">Daejeon, Korea
2016</div>

SAKSHAR: An Image-projective Desktop Varnamala Trainer (IDVT) for Interactive Learning of Alphabets
 Ravi Prakash Joshi, Riby Abraham Boby, 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`

<div align="right">Kitakyushu, Japan
2014</div>

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 5, 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*