

# Tadele Belay Tuli

University of Siegen  
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URL-ACADEMIC: <https://protech.mb.uni-siegen.de/fams/team/tuli.html>

URL-PERSONAL: <https://tadeletuli.github.io>

Born: June 07, 1986, Shambu, Ethiopia

Nationality: Ethiopian

## Current position

*Research associate*, University of Siegen, Germany

## Areas of specialization

Human robot collaboration (HRC); Motion modeling and control for HRC; Industrial automation

## Appointments held

2008 - 2010	Graduate assistant, Adama Science and Technology University, Ethiopia
2010 - 2012	Assistant lecturer, Adama Science and Technology University, Ethiopia
2015 - 2017	Lecturer, Addis Ababa Science and Technology University, Ethiopia
2017 - Now	Research Associate, University of Siegen, Germany

## Education

2008	B.Sc. in Mechanical Engineering, Bahir Dar University, Ethiopia
2012	M.Sc. in Manufacturing Engineering, Adama Science and Technology University, Ethiopia
2015	M.Sc. in Mechatronics Engineering, University of Trento, Italy

## Grants, honours & awards

2012	Opera Universitaria scholarships, University of Trento, Italy
2016	Best instructor of the Electromechanical Engineering department, AASTU
2016	Merit award, University of Trento, Italy

## Publications & talks

### JOURNAL ARTICLES

- 2019a Tuli, Tadele Belay; Cesarini, Andrea (2019), "Automated Unsupervised 3D Tool-Path Generation Using Stacked 2D Image Processing Technique", *Journal of Manufacturing and Materials Processing* Vol.3(4): 84.  
<https://doi.org/10.3390/jmmp3040084>
- 2019b Terefe, T. O., Lemu, H. G., K/Mariam, A., Tuli, T. B. (2019). "Kinematic Modeling and Analysis of a Walking Machine (Robot) Leg Mechanism on a Rough Terrain", *Advances in Science and Technology Research Journal* 13 no. 3: 43-53.  
<https://doi.org/10.12913/22998624/109792>
- 2020 Tuli, Tadele Belay; Terefe, Tesfaye Olana, Ur Rashid, Md Mamun (2020), "Telepresence Mobile Robots Design and Control for Social Interaction", *Int J of Soc Robotics*  
<https://doi.org/10.1007/s12369-020-00676-3>.

### CONFERENCES

- 2018 Tuli, Tadele Belay (2018), "Mathematical Modeling and Dynamic Simulation of Gantry Robot Using Bond Graph", *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering* 4: 513  
[https://doi.org/10.1007/978-3-319-95153-9\\_22](https://doi.org/10.1007/978-3-319-95153-9_22).
- 2019a Tuli, Tadele Belay; Manns, Martin (2019), "Hierarchical motion control for real time simulation of industrial robots", *Procedia CIRP* 17: 132–148  
<https://doi.org/10.1016/j.procir.2019.03.181>.
- 2019b Tuli, Tadele Belay; Manns, Martin (2019), "Real-time motion tracking for humans and robots in a collaborative assembly task", *Procedia MDPI*  
<https://doi.org/10.3390/ecsa-6-06636>.

### THESIS

- 2008 Tuli, Tadele Belay (2008), "Design of Solar based water purification system", (B.Sc. in Mechanical Engineering).
- 2012 Tuli, Tadele Belay (2012), "Finite Element Analysis of Bus Body Structures: Case study at Bishoftu Automotive and Locomotive Industry, Ethiopia" (M.Sc. in Manufacturing Engineering), LAP Lambert Academic Publishing ISBN-13: 978-3-659-25932-6
- 2015 Tuli, Tadele Belay (2015), "Task and path planning of industrial manipulator robot", (M.Sc. in Mechatronics Engineering),  
<http://www5.unitn.it/Biblioteca/en/Web/TesiDocente/193537>

## Teaching

2008 - 2012	Engineering Mechanics II (Dynamics) (B.Sc., ASTU, Ethiopia)
2015/16	Computer Integrated Manufacturing (B.Sc., AAIT, AAU, Ethiopia)
2016 - 2017	Introduction to Robotics and Control, Industrial Automation (B.Sc., AASTU)
2018	Automatisierte Produktionprozesse (B.Sc., Uni-Siegen, Germany)
2019 - now	Automation and Industrial Communication (M.Sc., Germany)
2020 - now	Industrial Robotics (M.Sc., Germany)

## Service to the profession

2015 - Now	Graduate student member of IEEE, RAS
2018 - Now	Member Ethiopian Society of Mechanical Engineers (ESME)