

Curriculum vitae of Deepak Kumar Ravi

Name: Deepak Kumar Ravi
Year of Birth: 1993
Place of Birth: India

Professional experience

Research experience

2021 - Present	Postdoc	Institute for Biomechanics, ETH Zürich, Switzerland
2016 - 2021	Scientific Asst.	Institute for Biomechanics, ETH Zürich, Switzerland
2014 - 2016	Trainee Scientist	CSIR-Central Scientific Instruments Organization, India

Education

2016 - 2021	Doctorate	D-HEST, Institute for Biomechanics, ETH Zürich, Switzerland Supervisors: Prof. Dr. William R. Taylor and Dr. Navrag B. Singh, ETH Zürich Title: Benchmarking human locomotor adaptation in time and magnitude: from perturbations to recovery
2014 - 2016	Master of Technology	Advanced Instrumentation Engineering, CSIO AcSIR Supervisors: Prof. Dr. Neelesh Kumar, CSIO and Prof. Dr. Pratibha Singh, PGIMER Title: Techniques for motor rehabilitation of children with cerebral palsy using virtual intelligence
2010 - 2014	Bachelor of Engineering	Mechatronics Engineering, KEC, Anna University Supervisor: Prof. Dr. S. Shankar, KEC Title: Design fabrication and study of muscle fatigue for kitchen workers using multichannel surface EMG

Grants

Research grant funded by the LOOP Zurich
Precision sensorimotor neurorehabilitation through personalised stimulation loops
WR Taylor, **DK Ravi**.
SFr. 825'000

ETH Scientific Equipment Grant
Clinical Gait Analysis Treadmill in the new GLC Facility
WR Taylor, **DK Ravi**.
SFr. 32'000

Swiss Government Excellence Scholarship (FCS)
Towards predicting fall risk in the elderly: A neuromuscular modelling approach for establishing the link between task performance, movement variability and risk of falling
DK Ravi, NB Singh, WR Taylor.
SFr. 70'000

Awards and Certificates

2020	AO Research Opportunity Award (SFr. 2'000)
2019	ISB Student Congress Travel Award (USD. 1'000)
2019	German Society of Biomechanics Travel Award (EUR. 500)
2018	De Luca Foundation 'Motor Control' Student Travel Award (USD. 500)

Other activities within ETHZ

2022 -	Staff Representative, Institute for Biomechanics at ETHZ
2021 -	Member, Scientific Staff Sounding Board, ETH-Bibliothek
2018 - 2021	Coordinator Communications, Academic Association of Scientific Staff at ETHZ
2017 - 2021	Board Member, Academic Association of Scientific Staff at ETHZ

Other activities outside ETHZ

2020 -	Member, ISPGR Communications Committee
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Publications in the past 5 years

1. **DK Ravi**, CR Baumann, E Bernasconi, M Gwerder, N König Ignasiak, M Uhl, L Stieglitz, WR Taylor, NB Singh, Does Subthalamic Deep Brain Stimulation Impact Asymmetry and Dyscoordination of Gait in Parkinson's Disease? Accepted in *Neurorehabilitation & Neural Repair*, 2021.
2. **DK Ravi**, CC Heimhofer, WR Taylor, NB Singh, Adapting footfall rhythmicity to auditory perturbations affects resilience of locomotor behavior: a proof-of-concept study, *Frontiers in Neuroscience*, 15, 2021.
3. **DK Ravi**, M Bartholet, A Skiadopoulos, JA Kent, J Wickstrom, WR Taylor, NB Singh, N Stergiou, Rhythmic auditory stimuli modulate movement recovery in response to perturbation during locomotion, *Journal of Experimental Biology*, 224, 2021.
4. **DK Ravi**, V Marmelat, WR Taylor, KM Newell, N Stergiou, NB Singh, Assessing the temporal organization of walking variability: A systematic review and consensus guidelines on detrended fluctuation analysis, *Frontiers in Physiology*, 11, 2020.
5. **DK Ravi**, M Gwerder, N König Ignasiak, CR Baumann, M Uhl, JH van Dieën, WR Taylor, NB Singh, Revealing the optimal thresholds for movement performance: a systematic review and meta-analysis to benchmark pathological walking behaviour, *Neuroscience & Biobehavioural Reviews*, 108, 2020.
6. N König Ignasiak, **DK Ravi**, S Orter, HS Hosseini Nasab, WR Taylor, NB Singh, Does variability of footfall kinematics correlate with dynamic stability of the center of mass during walking? *PLoS ONE*, 14(5), 2019.
7. S Orter, **DK Ravi**, NB Singh, F Vogl, WR Taylor, N König Ignasiak, A method to concatenate multiple short time series for evaluating dynamic behavior during walking, *PLoS ONE*, 14, 2019.