



SRM Valliammai Engineering College

SRM Nagar, Kattankulathur-603203, Kancheepuram District, Tamil Nadu
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Department of Electronics and Communication Engineering

Personal Details

Name :	Dr. R. Dhanush		
Designation :	Assistant Professor (Sr.G)		
Educational Qualification :	PhD in Biomedical Engineering		
Experience:	5 years (3.5 years in industry and 1.5 years in academics)		
Area of Specialization :	Biomechanics, Neuroscience, Biomedical instrumentation, Embedded design and development		
Date of Joining :	01/03/2022		
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Educational Details

S.No	Degree	Branch/Specialization	Institution / University	Year
1	B.E.	Electronics and Instrumentation Engg	Valliammai Engg College (Anna University) (University Rank holder)	2009
2	M.E.	Medical Electronics	College of Engineering, Guindy (Anna University) (University Gold medalist)	2011
3	Ph.D.	Applied mechanics- life sciences-Neuroscience and Biomechanics- Biomedical Engineering	IIT Madras	2019

Professional Society Memberships

1. IEEE Membership ID **90756417**

Publication Details

Journals:

1. **Rachaveti, D.**, Chakrabhavi, N., Shankar, V., Skm, V. (2018) Thumbs up: movements made by the thumb are smoother and larger than fingers in finger-thumb opposition tasks. *PeerJ* 6, e5763.
2. **Rachaveti D**, Skm V. (2020). Motor sequence learning data collected continuously for fifteen days of practice using a novel glove-based typing device. *Data in Brief* 29:105234. DOI: 10.1016/j.dib.2020.105234.
3. Balamurugan, S., **Rachaveti, D.**, & Varadhan, S. K. M. (2020). Role of post-trial visual feedback on unintentional force drift during isometric finger force production tasks. *Motor Control*.

Conferences:

1. **Dhanush Rachaveti** and Varadhan SKM, (2016), Study of significance of temporal features of learning novel typing tasks. 3rd Annual conference of the Association for cognitive Science, India, IIT Gandhinagar, India. October 3-5, 2016.
2. **Dhanush Rachaveti**, Varadhan SKM, " Learning Curve modelling of practice data from novel typing

tasks” held at Computational Brain Research CCBR 2017, IIT Madras, Chennai on January 3rd 2017 to January 7th 2017

3. **Dhanush Rachaveti** and Varadhan SKM, (2017), When do people achieve proficiency in a new task? A Learning Curve Approach. Third Indian National Conference on Applied Mechanics, MNNIT Allahabad, India. July 5-7, 2017.
4. **Dhanush Rachaveti**, Balamurugan and Varadhan SKM, (2017), Smoothness of finger force trajectories depends on target forces. 3rd Indian National Conference on Applied Mechanics, MNNIT Allahabad, India. July 5-7, 2017.
5. Niranjhan CS, Vaisakh Shankar, **Dhanush Rachaveti** and Varadhan SKM, (2017), *Kinematic Study of Thumb Touching Phalanges*. 3rd Indian National Conference on Applied Mechanics, MNNIT Allahabad, India.
6. **Dhanush Rachaveti.**, Ranganathan, R. and Varadhan, SKM, (2017), How quick and smooth finger opposition movement evolves with practice? 4th Annual Conference of the Association for Cognitive Science, India, University of Hyderabad. Oct 5-7, 2017.
7. **Dhanush Rachaveti**, Niranjhan P and Varadhan SKM, “Study of kinematic synergies of thumb during practice of a Novel typing task using a PCA based approach”, ACCS 2018.
8. **Dhanush Rachaveti**, Pratham Bhat and Varadhan SKM, “Study of evolution of chunking patterns during practice of a novel typing task”, ACCS 2018
9. **Dhanush Rachaveti** and Varadhan SKM, “Change in kinematic variability of a novel typing task with practice and task modification”, INCAM 2019 (submitted)

International Conference:

Dhanush Rachaveti, R. Ranganathan and Varadhan SKM, (2017), Dissociating improvements in speed and task performance in a novel motor sequence. 47th Annual meeting of the society for neuroscience, Washington D.C. November 11-15, 2017

Research and Development Details

1. *No. of Research Projects Completed: 2*

As a PhD Scholar:

Studies of motor learning and coarticulation in novel typing tasks, DST Cognitive science research initiative SR/CSRI/97/2014(G), Rs. 69.96 Lakhs August 2015 – August 2018. Status: completed. Trained as a PhD scholar and as lead person in the above project. Involved procurement of equipment, procurement of consumables, designing, developing prototypes, conducting experiments, analysis, finishing and finalizing the deliverables

As a Co-PI:

Varadhan SKM, Lakshmi Narasimhan R, **Dhanush Rachaveti.** (2018) Speech assistive gloves for post traumatic care of people with compromised ability to vocally communicate. Biomedical device and technology development, DST.

2. *No. of Patents Filed: Nil*

3. *No. of Ph.D candidates guided/guiding: Nil*

4. *No of Conferences Convened: 1*

2020: Session Chair of IEEE sponsored 2 days Conference on “Biomedical Smart Structures and Systems”, ICBMSSS-2021 organized by Organized by the Department of ECE, Medical Electronics and BME in Association with IEEE, held virtually on 7th and 8th May 2021

Other Particulars

1. *No. of Books Published: Nil*

2. *No. of STTP/FDP coordinated: 2*

2020: Phase II – Coordinator of AICTE sponsored six days training program on “Implementation of medical image processing using advanced green computing technology” organized by the department of Medical Electronics and Biomedical Engineering of the Saveetha Engineering college between 14th to 19th December 2020

2020: Phase I – Coordinator of AICTE sponsored six days training program on “Implementation of medical image processing using advanced green computing technology” organized by the department of Medical Electronics and Biomedical Engineering of the Saveetha Engineering college between 2nd to 7th November 2020