New Zealand MSI Curriculum Vitae Template

Personal details								
Full name	Title		First name	Second name(s)		Famil	Family name	
	Dr		Imran Khan	Nia		zi		
Present position			Senior Research Fellow					
Organisation/Employer			New Zealand College of Chiropractic					
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Email		Imran.niazi@nzchiro.co.nz						
Personal web	site	https://www.researchgate.net/profile/Imran_Niazi						
(if applicable)		•	 https://scholar.google.com/citations?user=vegOex8AAA 					
			AJ&hl=en					
		•	 http://vbn.aau.dk/en/persons/imran-khan- 					
			niazi(13b2ab62-5bc7-4ce7-8aeb-					
			f81ec5c01d74)/publications.html					

Academic qualifications

Dec-2012, Ph.D., Biomedical Science and Engineering, Aalborg University, Denmark Mar-2009, MSc, Biomedical Engineering, FH and University of Lübeck, Germany Sept-2005, BSc, Electrical Engineering, Riphah Int'l University, Islamabad, Pakistan

Professional positions held

01-2016 to till date, Senior Research Fellow, New Zealand College of Chiropractic

01-2016 to till date, Adjunct Researcher at Auckland University of Technology

08-2015 to 12-2015, Post-Doctoral Fellow at Auckland University of Technology

04-2013 to 07-2015, Research Fellow, New Zealand College of Chiropractic

04-2013 to till date, Guest Researcher, Aalborg University, Denmark

04-2012 to 03-2013, Postdoc, Aalborg University, Denmark

04-2009 to 04-2012, Ph.D. Fellow, Aalborg University, Denmark

Present research/professional specialty

I have been working for the past 12 years as an active researcher in physical and neural rehabilitation, focusing on non-pharmacological/conservative modes of treatment to optimize the patient's rehabilitation journey and improve the quality of life. I have extensive experience working in multidisciplinary teams that include chiropractors, physiotherapists, medical doctors, engineers, and neuroscientists, with a solid patient-centered, evidence-informed approach. My research aims to elucidate the underlying mechanisms of rehabilitation from a basic science perspective and develop or improve non-pharmacological therapies (technological and manual approaches) through clinical trials. My core expertise lies with data analysis, emphasizing the capture of the nuance of information from patients and clinicians with artificial intelligence, which is missing in most traditional data analysis methods. I have had the opportunity to work in three different continents (Europe, Asia, and Australasia) in esteemed institutes with leading experts in these fields (Details in CV).

I have authored 76 peer-reviewed journal papers and 96 conference papers (proceedings and extended abstracts including). According to google scholar, my work has been cited more than 2200 times, and I have an h-index of 23. Currently, I have 12 active international collaborations, which currently involve collaborations with 20 different researchers or groups from 15 different institutions located in 9 different countries worldwide.

Teaching Experience	12 Year
Supervision/Teaching	

- Research Methodology Course to first and 2nd-year Chiropractic Student since 2015
- Research Design Course to Master of Health Sciences at AUT since 2016
- Motor Control (Rehab Technologies) Master of Health Sciences at AUT since 2016
- 2015-till date Currently ongoing Co-Supervising 3 Ph.D. students at Auckland University of Technology, Auckland, New Zealand, and one at Aalborg University, Denmark.
- List of already finished Ph.D. students in my Co-supervision

2012-2015 Mads Jochumsen from Aalborg University, Denmark

2015-2018 Zia Ur Rehman from NUST, Pakistan

2015-2019 Imran Amjad from NUST, Pakistan

2015-2019 Sharon Olsen from AUT. New Zealand

2015-2019 Usman Rashid from AUT, New Zealand

2016-2020 Muhammad Samran Navid, Aalborg University, Denmark

- 2009-till date Supervision of 31 Masters 9th semester projects and 15 master's theses at Aalborg University
- Feb-Sept 2005 Teaching assistant at Riphah University. (Conducted CAD course)

Research experience

11 year

Professional distinctions and memberships (including honors, prizes, scholarships, boards or governance roles, etc.)

Principal Investigator:

- BCI for the rehabilitation of stroke rehabilitation, Aalborg University, Awarded in 2009 ~1.5 Million DKK (~300,000 USD)
- Multiclass BCI for stroke rehabilitation, Aalborg University, Awarded in 2012 ~1.5 Million DKK (~300,000 USD)
- The effects of a single session of chiropractic care on brain source connectivity. Australian Spinal research foundation (ASRF), Awarded in 2014. (~106000 NZD).
- Campus France in 2017. Invited Professor at University of Valenciennes 2700 Euro
- Campus France in 2018. Invited Professor at University of Valenciennes 2700 Euro
- Campus France in 2020. Invited Professor at University of Valenciennes 2700 Euro (Not utilized because of COVID19)
- Understanding spinal motor control during standing, locomotion, and in response to an external perturbation. Awarded in 2018 by NCMIC, USA (50,000 USD)
- The biomechanical assessment of vertebral subluxations using motion capture analysis. Awarded in 2019 by Australian Spinal Research Foundation (80,000 AUD)

Co-PI

- Breathing Neurotherapy: Developing a non-invasive traumatic brain injury treatment. DCT Contestable Research Fund, AUT, 2021(80,000).
- The Impact of Chiropractic Care on Spinal Motor Control During Standing, Locomotion and in Response to an External Perturbation Awarded in 2020 by NCMIC, USA (160,000 USD)
- Feasibility Study grant for Excite BCI Awarded in 2020 by Health Research Council, New Zealand (NZD 245,116)
- Does specificity matter when chiropractors adjust vertebral subluxations? Awarded in 2020 by the Australian Spinal research foundation (ASRF). (19,535 NZD).

- Characterizing brain and muscle activation and metabolic activity changes, along with markers of mental and physical health and quality of life, following chiropractic care provided by a master chiropractor. Awarded in 2019 by Andrew Russell (the Duke of Bedford) and Dr. Jerome Poupel, UK (~140,000 NZD).
- The effects of chiropractic care on functional outcomes somatosensory processing and motor control in patients who have suffered a stroke. A pilot study. Awarded in 2018 by The Rubicon Group (20,000 NZD).
- The effects of chiropractic care on functional outcomes somatosensory processing and motor control in patients who have suffered from a stroke.
 A pilot study. Awarded in 2016 by United Chiropractic Association, UK (56,532.94 NZD).
- The effects of chiropractic care on functional outcomes somatosensory processing and motor control in patients who have suffered a stroke. A pilot study. Awarded in 2016 by Scottish Chiropractic Association (4276 NZD).
- The effects of chiropractic care on functional outcomes somatosensory processing and motor control in patients who have suffered a stroke. A pilot study. Awarded in 2016 by The Rubicon Group (20,000 NZD).
- Brain source localization Project Collaboration AAL & NZCC. Awarded in 2015 by Hamblin Chiropractic Research Trust (~30000 NZD).
- Chiropractic care and the control of eye movement in children with attention deficit hyperactivity disorder: A pilot study. Awarded in 2015 by the Australian Spinal research foundation (ASRF). (~19600 NZD).
- The effects of a single spinal manipulation session on power, strength, and cortical drive in athletes. Awarded in 2015 by the University of Southern Denmark. DKK 155200 (~31500 NZD).
- The effects of chiropractic care on functional outcomes somatosensory processing and motor control in patients who have suffered a stroke. A pilot study. Awarded in 2015 by the United Chiropractic Association, UK (56,532.94 NZD).
- The Aalborg BCI: an MRCP driven PAS protocol for people with stroke.
 Neurological Foundation of New Zealand. Awarded in 2014. (11,600 NZD).
- The Aalborg BCI an MRCP driven PAS protocol for people with stroke. Physiotherapy New Zealand was awarded in 2014 (17,500 NZD).
- Chiropractic care and the control of eye movement in children with attention deficit hyperactivity disorder: A pilot study. Awarded in 2014 by College of Chiropractic Neuro-developmental Paediatrics (~\$6251).
- Chiropractic care and the cortical silent period. Awarded in 2014 by the Australian Spinal Research Foundation (44,500 NZD).
- Chiropractic care and the cortical silent period. Awarded in 2014 by Hamblin Chiropractic (15,000 NZD).
- The effects of chiropractic care on pelvic floor muscle function in 2014 by the Australian Spinal Research Foundation (67,800 NZD).

Awards

- Effects of chiropractic care on neural plasticity OTTO MØNSTEDS FOND Awarded in 2011, DKK 15000 (~3000 USD).
- Conference participation (ISEK 2012) OTTO MØNSTEDS FOND Awarded in 2012, DKK 10000 (~2000 USD).
- Conference participation (ISEK 2012) OTTICON FONDEN

- Awarded in 2012, DKK 4500. (~1000 USD)
- Selected among the top 10 research projects for BCI award 2012.
 Sixty-eight top-level research projects were submitted from all over the world. The Award was presented at the "BCI party" at the SfN 2012 conference in New Orleans, USA.
- First-place award-winning paper at The Parker Experience Seminar in Las Vegas, the USA in 2016 for the research study 'Chiropractic adjustments alters sensorimotor integration in the pre-frontal cortex A brain localisation study' which is a study I was a co-PI.
- Selected among top 10, C-Prize wearable technology challenge 2017. C prize is run by Callaghan Innovation, NZ https://www.cprize.nz/meet-finalists
- Received an Alumni Achievers Award from Riphah International University in Pakistan in 2017.
- In 2016 our research team received a 'President's Award' at the New Zealand Chiropractors Association AGM to recognize its contribution in providing evidence-based information and guidance to the NZCA.

Total number of peer-reviewed	Journal articles	•	Conference Proceedings /Abstracts	Patents
publications an patents	d 76	1	95	1 (pending)

Research Journal/Conference publications and dissemination

Peer-reviewed journal articles

- 1. Detection of movement intention from single-trial movement-related cortical potentials. / Niazi, Imran Khan; Jiang, Ning; Tiberghien, Olivier; Nielsen, Jørgen Feldbæk; Dremstrup, Kim; Farina, Dario. In Journal of Neural Engineering, 2011.
- 2. Performance of a simulated adaptive BCI based on the experimental classification of movement-related and error potentials. /Xavier Artusi, Niazi, Imran Khan, Marie-Françoise Lucas, Dario Farina. In IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2011.
- 3. Peripheral electrical stimulation triggered by self-pace detection of motor intention enhances cortical excitability / Niazi, Imran Khan; Mrachacz-Kersting, Natalie; Jiang, Ning; Dremstrup, Kim; Farina, Dario. In Journal of IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012.
- 4. Precise temporal association between cortical potentials evoked by motor imagination and afference induces cortical plasticity. / Mrachacz-Kersting, Natalie; Kristensen, Signe Rom; Niazi, Imran Khan; Dremstrup, Kim; Farina, Dario. In: Journal of Physiology, 2012.
- 5. Detection of movement-related cortical potentials based on subject-independent training. / Niazi, Imran Khan; Jiang, Ning; Jochumsen, Mads; Dremstrup, Kim; Farina, Dario. In Medical & Biological Engineering & Computing 2013.
- 6. Detection and classification of movement-related cortical potentials for variations in speed and force for use in rehabilitation. / Jochumsen, Mads; Niazi, Imran Khan; Mrachacz-Kersting, Natalie; Farina, Dario; Dremstrup, Kim. In Journal of Neural Engineering 2013.
- 7. Changes in H-reflex and V-waves following a spinal manipulation. / **Niazi, Imran Khan**; Türker, Kemal S.; Flavel, Stanley; Kinget, Mat; Duehr, Jens; Haavik, Heidi.

In Experimental Brain Research, 2015.

- 8. EMD based temporal and spectral features for the classification of EEG signals using supervised learning. / Riaz, Farhan; Hassan, Ali; Rehman, Saad; Niazi, Imran Khan; Dremstrup, Kim. In IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015.
- 9. Comparison of spatial filters and features for the detection and classification of movement-related cortical potentials in healthy individuals and stroke patients. / Jochumsen, Mads; Niazi, Imran Khan; Mrachacz- Kersting, Natalie; Jiang, Ning; Farina, Dario; Dremstrup, Kim. In Journal of Neural Engineering, 2015
- **10.** Detecting and classifying movement-related cortical potentials associated with hand movements in healthy subjects and stroke patients from single-electrode, single-trial EEG. / Jochumsen, Mads; **Niazi, Imran Khan**; Taylor, Denise, Farina, Dario; Dremstrup, Kim. **In Journal of Neural Engineering,2015.**
- 11. Comparison of features for movement prediction from single-trial movement-related cortical potentials in healthy subjects and stroke patients. / Kamavuako, Ernest Nlandu; Jochumsen, Mads; Niazi, Imran Khan; Dremstrup, Kim. In Computational Intelligence and Neuroscience,2015.
- 12. Online multi-class brain-computer interface for detection and classification of lower limb movement intentions and kinetics for stroke rehabilitation/Jochumsen, Mads; Niazi, Imran Khan; Navid, Muhammad Samran; Anwar, Muhammad Nabeel; Farina, Dario; Dremstrup, Kim. In Brain-Computer Interfaces, 2015.
- 13. The effects of 12 weeks of chiropractic care on central integration of dual somatosensory input: A pilot study. / Haavik, Heidi; Niazi, Imran Khan; Holt, Kelly; Murphy, Bernadette. In Journal of manipulative and physiological therapeutics 2015
- 14. Induction of long-term depression-like plasticity by pairings of motor imagination and peripheral electrical stimulation. / Jochumsen, Mads; Signal, Nada; Nedergaard, Rasmus Wiberg; Taylor, Denise; Haavik, Heidi; Niazi, Imran Khan. In Frontiers in Human Neuroscience 2015.
- 15. A review of techniques for detection of movement intention using movement-related cortical potentials. Shakeel, Aqsa; Navid, Muhammad Samran; Anwar, Muhammad Nabeel; Mazhar, Suleman; Jochumsen, Mads; and Niazi, Imran Khan. In Computational and Mathematical Methods in Medicine 2015.
- 16. Efficient neuroplasticity induction in chronic stroke patients by an associative brain-computer interface. / Mrachacz-Kersting, Natalie; Jiang, Ning; Stevenson, Andrew James Thomas; Niazi, Imran Khan; Kostic, Vladimir; Pavlovic, Aleksandra; Radovanovic, Sasa; Djuric-Jovicic, Milica; Agosta, Federica; Dremstrup, Kim; and Farina, Dario; In Journal of Neurophysiology 2016.
- 17. Manipulation of dysfunctional spinal joints affects sensorimotor integration in the pre-fontal cortex: a brain source localization study. / Lelic, Dina; Niazi, Imran Khan; Holt, Kelly; Jochumsen, Mads; Dremstrup, Kim; Yielder, Paul; Murphy, Bernadette; Drewes, Asbjørn; Haavik, Heidi. In Journal of Neural Plasticity, 2016
- 18. Pairing voluntary movement and muscle-located electrical stimulation increase cortical excitability. / Jochumsen, Mads; Niazi, Imran Khan; Signal, Nada; Nedergaard, Rasmus Wiberg; Haavik, Heidi; Taylor, Denise. In Frontiers in Human Neuroscience 2016.
- 19. Impact of spinal manipulation on the cortical drive to upper and lower limb muscles. /Haavik, Heidi; Niazi, Imran Khan; Jochumsen, Mads; Sherwin, Diane; Flavel, Stanley; Türker, Kemal S. In Brain Sciences 2017 (Special Issue: Motor Control and Brain Plasticity).
- 20. Paired associative stimulation delivered by pairing movement-related cortical

- potentials with peripheral electrical stimulation: An investigation of the duration of neuromodulatory effects. / Olsen, Sharon; Signal, Nada; **Niazi, Imran Khan**; Christensen, Thomas Momme; Jochumsen, Mads; Taylor, Denise. **In Journal of Neuromodulation: Technology at the Neural Interface. 2017.**
- 21. Transfer learning for electroencephalogram signals. / Abid, Farah; Hassan, Ali; Abid, Anjum; Jochumsen, Mads; Navid, Muhammad Samran; Nedergaard, Rasmus Wiberg; Niazi, Imran Khan. International Journal of Bioscience, Biochemistry, and Bioinformatics, 2017.
- 22. Classification of hand grasp kinetics and types using movement-related cortical potentials and EEG rhythms. / Jochumsen, Mads, Rovsing, Cecilie; Rovsing, Helene; Niazi, Imran Khan; Dremstrup, Kim; Kamavuako, Ernest Nlandu. In Computational Intelligence and Neuroscience, 2017.
- 23. Effect of subject training on a movement-related cortical potential-based brain-computer interface. / Jochumsen, Mads; Niazi, Imran Khan; Nedergaard, Rasmus Wiberg; Navid, Muhammad Samran; Dremstrup, Kim; In Biomedical Signal Processing and Control, 2017
- 24. Quantification of movement-related EEG correlates associated with motor training: a study on movement-related cortical potentials and sensorimotor rhythms. / Jochumsen, Mads; Rovsing, Cecilie; Rovsing, Helene; Cremoux, Sylvain; Signal, Nada; Allen, Kathryn; Taylor, Denise; Niazi, Imran Khan; In Frontiers in Human Neuroscience 2017.
- 25. The effects of a single session of spinal manipulation on strength and cortical drive in athletes. / Christiansen, Thomas Lykke; Niazi, Imran Khan; Holt, Kelly; Nedergaard, Rasmus Wiberg; Duehr, Jens; Allen, Kathryn; Marshall, Paul; Turker, Kemal S; Hartvigsen, Jan; Haavik, Heidi; In European Journal of Applied Physiology Jan 2018.
- 26. Posture modulates the sensitivity of the H-reflex. / Cecen, Serpil; Niazi, Imran Khan; Nedergaard, Rasmus Wiberg; Cade, Alice; Allen, Kathryn; Holt, Kelly; Haavik, Heidi; Türker, Kemal S. In Experimental Brain Research, Vol. 236, No. 3, 2018, p. 829-835.
- 27. The effect of time on emg classification of hand motions in able-bodied and transradial amputees. /Waris, Asim; Niazi, Imran Khan; Jamil, Mohsin; Gilani, Omer; Englehart, Kevin; Jensen, Winnie; Shafique, Muhammad; Kamavuako, Ernest Nlandu. In the Journal of Electromyography and Kinesiology April 2018
- 28. Chiropractic manipulation increases maximal bite force in healthy individuals. / Haavik, Heidi; Özyurt, Mustafa Görkem; Niazi, Imran Khan; Holt, Kelly; Nedergaard, Rasmus Wiberg; Yilmaz, Gizem; Türker, Kemal Sitki. In Brain Sciences 2018 (Special Issue: Neurophysiological Correlates to Behavioural Performance in Motor Learning).
- 29. Chiropractic spinal manipulation alters TMS induced I-wave excitability and shortens the cortical silent period. / Haavik, Heidi; Niazi, Imran Khan; Jochumsen, Mads; Uginčius, Paulius; Sebik, Oğuz; Yılmaz, Gizem; Navid, Muhammad Samran; Özyurt, Mustafa Görkem; Türker, Kemal S. In Journal of Electromyography & Kinesiology, Vol. 42, 19.06.2018, p. 24-35.
- **30.** Stacked sparse autoencoders for EMG-based classification of hand motions: a comparative multi-day study between the surface and intramuscular EMG. / Zia Ur Rehman, Muhammad; Gilani, Syed Omer; Waris, Asim; Niazi, Imran Khan; Slabaugh, Gregory; Farina, Dario; Kamavuako, Ernest Nlandu. **In Applied**

Sciences July 2018 (Special Issue: "Deep Learning and Big Data in Healthcare)

- 31. Multiday EMG-based classification of hand motions with deep learning techniques. / Zia Ur Rehman, Muhammad; Waris, Asim; Gilani, Syed Omer; Jochumsen, Mads; Niazi, Imran Khan; Jamil, Mohsin; Farina, Dario; Kamavuako, Ernest Nlandu. In Sensors July 2018 (Special Issue: "Sensor Signal and Information Processing)
- 32. Multiday evaluation of techniques for EMG based classification of hand motions. / Waris, Asim; Niazi, Imran Khan; Jamil, Mohsin; Englehart, Kevin; Jensen, Winnie; Kamavuako, Ernest Nlandu. In IEEE Journal of Biomedical and Health Informatics August 2018
- 33. Xbox 360 Kinect cognitive games improve slowness, complexity of EEG, and cognitive functions in subjects with mild cognitive impairment: a randomized control trial. / Amjad, Imran; Toor, Hamza; Niazi, Imran Khan; Pervaiz, Sana; Jochumsen, Mads; Shafique, Muhammad; Haavik, Heidi; Ahmed, Touqeer. In Games for Health Journal August 2018
- 34. Classification of overt and covert speech for the near-infrared spectroscopy-based brain-computer interface. / Kamavuako, Ernest Nlandu; Sheikh, Usman Ayub; Gilani, Syed Omer; Jamil, Mohsin; Niazi, Imran Khan; In Sensors September 2018 (Special Issue: " Biomedical Infrared Imaging: From Sensors to Applications").
- 35. Movement intention detection in adolescents with cerebral palsy from single-trial EEG. / Jochumsen, Mads; Shafique, Muhammad; Hassan, Ali; Niazi, Imran Khan. In the Journal of Neural Engineering, Sept 2018.
- 36. Effect of aerobic exercise on electroencephalogram parameters and cognitive functions in patients with mild cognitive impairment. / Amjad, Imran; Toor, Hamza Ghazanfar Mehmood; Niazi, Imran Khan; Afzal, Hina; Jochumsen, Mads; Shafiq, Muhammad; Allen, Kathryn; Haavik, Heidi; Ahmed, Touqeer. International Journal of Neuroscience. Sept 2018
- 37. An EEG experimental study evaluating the performance of texas instruments ADS1299. / Rashid, Usman; Niazi, Imran Khan; Signal, Nada; Taylor, Denise. In Sensors November 2018 (Section: Chemical Sensors, Special Issue: EEG Electrodes).
- 38. Investigation of optimal afferent feedback modality for inducing neural plasticity with a self-paced brain-computer interface./ Jochumsen, Mads; Cremoux, Sylvain; Robinault, Lucien; Lauber, Jimmy; Arceo, Juan Carlos; Navid, Muhammad Samran; Rashid, Usman; Haavik, Heidi; Niazi, Imran Khan. In Sensors November 2018 (Section: Biosensors).
- 39. Use of neuromodulatory approaches in stroke rehabilitation, / Niazi, Imran Khan. Editorial in Journal of Riphah College of Rehabilitation Sciences. JRCRS. 2018; 6(2): 56-57 doi: 10.5455/JRCRS.2018060208
- **40.** The effects of a single session of chiropractic care on strength, cortical drive, and spinal excitability in stroke patients. / Holt, Kelly, **Niazi, Imran Khan**; Nedergaard, Rasmus Wiberg; Duehr, Jens; Amjad, Imran; Shafiq, Muhammad; Anwar, Muhammad Nabeel; Ndetan, Harrison; Turker, Kemal; Haavik, Heidi. **In Nature-Scientific Reports Jan 2019.**
- 41. The effects of chiropractic spinal manipulation on central processing of tonic pain a pilot study using standardized low-resolution brain electromagnetic tomography (sLORETA). / Navid, Muhammad Samran; Lelic, Dina; Niazi, Imran Khan; Holt, Kelly; Bolvig, Esben; Drewes, Asbjørn Mohr, Haavik, Heidi. In Nature-Scientific Reports, April 2019.

- **42.** Automated labeling of movement-related cortical potentials using segmented regression. / Rashid, Usman; **Niazi, Imran Khan**; Jochumsen, Mads; Kroll, Laurens K.; Signal, Nada; Taylor, Denise. **In IEEE Transactions on Neural Systems and Rehabilitation Engineering, April 2019.**
- 43. Self-paced online vs. Cue-based offline brain-computer interfaces for inducing neural plasticity. / Jochumsen, Mads; Navid, Muhammad Samran; Nedergaard, Rasmus Wiberg; Signal, Nada; Rashid, Usman; Hassan, Ali; Haavik, Heidi; Taylor, Denise; Niazi, Imran Khan. In Brain Sciences May 2019 (Special Issue: Collection on Neural Engineering)
- 44. The effects of filter's class, cutoff frequencies, and independent component analysis on the amplitude of somatosensory evoked potentials recorded from healthy volunteers. / Navid, Muhammad Samran; Niazi, Imran Khan; Lelic, Dina; Drewes, Asbjørn Mohr, Haavik, Heidi. In Sensors (Section: Biosensors) June 2019.
- 45. Increased voluntary activation of the elbow flexors following a single session of spinal manipulation in a subclinical neck pain population. / Kingett, Matt; Holt, Kelly; Niazi, Imran Khan; Nedergaard, Rasmus Wiberg; Lee, Michael; Haavik, Heidi. In Brain Sciences June 2019 (Special Issue: Collection on Neural Engineering)
- **46.** Optimal automatic detection of muscle activation intervals. /Rashid, Usman; **Niazi, Imran Khan**; Signal Nada; Farina, Dario; Taylor, Denise. **In Journal of Electromyography & Kinesiology June 2019**
- **47.** A tensor-based method for completion of missing electromyography data. /Akmal, Muhammad; Zubair, Syed; Jochumsen, Mads; Kamavuako, Ernest Nlandu, **Niazi, Imran Khan. In IEEE ACCESS July 2019.**
- 48. EMG-versus EEG-Triggered electrical stimulation for inducing corticospinal plasticity. / Jochumsen, Mads; Navid, Muhammad Samran; Rashid, Usman; Haavik, Heidi; Niazi, Imran Khan; In IEEE Transactions on Neural Systems and Rehabilitation Engineering, August 2019.
- **49.** Upper limb complex movements decoding from pre-movement EEG signals using wavelet common spatial patterns. / Mohseni, Mahdieh; Shalchyan, Vahid; Jochumsen, Mads; **Niazi, Imran Khan. Computer Methods and Programs in Biomedicine, Sept 2019.**
- 50. The variability of psychophysical parameters in surface and subdermal stimulation: a multiday study in amputees. / Dong, Jian; Geng, Bo; Niazi, Imran Khan; Amjad, Imran; Dosen, Strahinja; Jensen, Winnie; kamavuako, Ernest Nlandu; In IEEE Transactions on Neural Systems and Rehabilitation Engineering, October 2019.
- 51. Transcranial magnetic stimulation-induced early silent period and rebound activity re-examined. / Mustafa Gorkem; Haavik, Heidi; Nedergaard, Rasmus Wiberg; Topkara, Betilay; Şenocak, Beatrice Selen; Göztepe, Mehmet Berke; Niazi, Imran Khan; Kemal S Türker; In PLOS ONE, November 2019.
- 52. Performance evaluation of convolutional neural network for hand gesture recognition using EMG. / Raza Asif, Ali; Waris, Asim; Gilani, Syed Omer; Jamil, Mohsin; Ashraf, Hassan; Shafique, Muhammad; Niazi, Imran Khan; In Sensors (Advanced Machine Learning and Deep Networks for Psycho-Physiological Signals Processing, Modelling, and Classification) February 2020.
- 53. Peripheral electrical stimulation, paired with movement-related cortical potentials, improves isometric muscle strength and voluntary activation following stroke. / Olsen, Sharon; Signal, Nada; Niazi, Imran Khan; Rashid, Usman; Alder, Gemma; Mawston, Grant; Nedergaard, Rasmus; Jochumsen, Mads; Taylor, Denise; In Frontiers in Human Neuroscience April 2020.

- 54. Intra- and inter-rater reliability of manual feature extraction methods in movement-related cortical potential analysis. / Alder, Gemma; Signal, Nada; Rashid, Usman; Olsen, Olsen; Niazi, Imran Khan; Taylor, Denise. In Sensors (special issue: Biomedical Signal Processing) April 2020.
- 55. Investigating the effects of chiropractic spinal manipulation on EEG in stroke patients. / Navid, Muhammad Samran; Niazi, Imran Khan; Lelic, Dina; Nedergaard, Rasmus Bach; Holt, Kelly; Amjad, Imran; Drewes, Asbjørn Mohr; Haavik, Heidi. In Brain Sciences (Special Issue: Brain Plasticity and Motor Control—Series II) April 2020.
- 56. Determination of optimum segmentation schemes for pattern recognition-based myoelectric control: a multi-data set investigation. / Ashraf, Hassan; Waris, Asim; Jamil, Mohsin; Gilani, Syed Omer; Niazi, Imran Khan; Kamavuako, Ernest Nlandu; Gillani, Syed Hammad. In IEEE ACCESS May 2020
- 57. A multiday evaluation of real-time intramuscular EMG usability with ann. / Waris, Asim; Zia Ur Rehman, Muhammad; Niazi, Imran Khan; Jochumsen, Mads; Englehart, Kevin; Jensen, Winnie; Haavik, Heidi; Kamavuako, Ernest Nlandu. In Intelligent sensors Section of Sensors June 2020.
- **58.** Detection and classification of single-trial movement-related cortical potentials associated with functional lower limb movements. / Jochumsen, Mads; **Niazi, Imran Khan. In Journal of Neural Engineering, July 2020.**
- 59. ERP based measures of cognitive workload: A Review. / Ghani, Usman; Signal, Nada; Niazi, Imran Khan; Taylor, Denise; In Neuroscience & Biobehavioral Reviews July 2020
- 60. Classification of error-related potentials from single-trial EEG in association with executed and imagined movements: a feature and classifier investigation. / Usama, Nayab; Leerskov, Kasper; Niazi, Imran Khan; Dremstrup; Jochumsen, Mads. In Medical & Biological Engineering & Computing August 2020.
- 61. Latest research trends in gait analysis using wearable sensors and machine learning: a systematic review./Saboor, Abdul; Kask, Triin; Kuusik, Alar; Alam, Muhammad Mahtab; Le Moullec, Yannick; Niazi, Imran khan; Zoha, Ahmed; Ahmad, Rizwan. In IEEE ACCESS August 2020.
- 62. Functional connectivity analysis on resting-state electroencephalography signals following chiropractic spinal manipulation in stroke patients./ Waterstone, Toby Steven; Niazi, Imran Khan; Navid, Muhammad Samran; Amjad, Imran; Shafique, Muhammad; Holt, Kelly; Haavik, Heidi; Samani, Afshin. In Brain Sciences (Special Issue: Brain Plasticity and Motor Control—Series II) September 2020.
- 63. Eye & voice-controlled human machine interface system for wheelchairs using image gradient approach. /Anwer, Saba; Sultan, Hajrah; Butt, Shahid Ikramullah; Zafar, Muhammad Hamza; Sarwar, Moaz; Niazi, Imran Khan; Shafique, Muhammad; Pujari, Amit N. In Intelligent sensors Section of Sensors (Special Issue: Signal Processing Using Non-invasive Physiological Sensors) September 2020.
- 64. Acute effects of aerobic exercise on somatosensory evoked potentials in patients with mild cognitive impairment./ Amjad, Imran; Niazi, Imran Khan; Toor, Hamza Ghazanfar; Nedergaard, Rasmus Bach; Shafique, Muhammad; Holt, Kelly; Haavik, Heidi; Ahmed, Touqeer. In Brain Sciences (Special Issue: Brain Plasticity and Motor Control—Series II) September 2020.

- **65.** A novel approach to validate the efficacy of single task ERP paradigms to measure cognitive workload. / Ghani, Usman; Signal, Nada; **Niazi, Imran Khan**; Taylor, Denise; **In International Journal of Psychophysiology October 2020**
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- **3.** The effects of 4 weeks of chiropractic care plus physical therapy, compared to physical therapy alone, on motor function in chronic stroke patients: a clinical trial./ Holt, Kelly; Niazi, Imran

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- **4.** Using Artificial intelligence (AI) to investigate the effects of Chiropractic Spinal Manipulation on Resting state EEG in Stroke Patients./ Niazi, Imran Khan; Jensen, Sofie Helene Bjørsrud; Jørgensen, Cecilia Klitgaard; Nielsen, Camilla Winther; Holt, Kelly; Haavik, Heidi. At ACC-RAC 25-27 March 2021 Online, USA.
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- **55.** Increased upper limb cortical excitability following a spinal manipulation. Haavik Heidi. Niazi Imran Khan, Sherwin Diane & Flavel Stan. (2013). Platform presentation World Federation of Chiropractic's 12th Biennial Congress, April 6 9, Durban, South Africa. Proceedings p., 147.
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- 58. Classifying speed and force from movement intentions using entropy and a support vector machine./Jochumsen, Mads; Niazi, Imran Khan; Farina, D.; Dremstrup, Kim.Proceedings of the Fifth International Brain-Computer Interface Meeting: Defining the Future, 3-7 June 2013, Pacific Grove, CA, USA. ed. / J. d. R. Millán; S. Gao; G. R. Müller-Putz; J. R. Wolpaw; J. E. Huggins. Verlag der Technischen Universität Graz, 2013. p. Article No. 136.
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Journal/Conference Reviewer

	Journal Name	Number	Years	IF
1	Medical & Biological Engineering & Computing	4	2012, 2015, 2016, 2017	1.97
2	Journal of Neural Engineering	4	2013, 2015, 2016, 2017	3.90
3	IEEE Journal of Biomedical and	1	2013	3.451
	Health Informatics			
4	Biomedical Signal Processing and Control	1	2013	2.78
5	Frontiers of Human Neuroscience	7	2014*2,2018*3,2019,2020	3.6
6	Transactions on Neural Systems & Rehabilitation Engineering (IEEE -TNSRE)	9	2014,2016,2*2017, 2018,3*2019,2020	3.97
7	The program committee of the 13th International Conference on Neuro-Computing and Evolving Intelligence held at AUT	2	2015	
8	7th International IEEE EMBS Conference on Neural Engineering	1	2014	
9	ICNR 2018 Pisa Italy	1	2018	
10		4	2*2018,2019,2020	1.753
11	. ,	1	2018	4.12
12	•	1	2018	2.17
13	Journal of Manipulative and Physiological Therapeutics	3	2*2018,2021	1.592
14		2	2018,2019	4.739
15	Journal of Neuroscience Methods	1	2018	2.256
16	Annals of Biomedical Engineering	2	2*2018	3.405
17	9th International IEEE EMBS Conference on Neural Engineering	6	2018	
18		11	2014,2018,4*2019,3*2020,2*2021	3.031
19	Journal of Integrative Medicine	2	2019,2021	1.48
20	Brain Sciences	2	2*2019	2.5
21	Expert Systems with Applications	1	2019	3.768

22	Royal Society Open Science	1	2019	2.4
	IEEE International Conference on	1	2019	
	Systems, Man, and Cybernetics			
	6-9 October 2019, Bari, Italy			
24	IEEE Transactions on Biomedical	2	2019,2020	4.288
	Engineering		,	
25	Acupuncture in Medicine	1	2019	2.275
26	Human Movement Science	1	2019	2.360
27	Computers in Biology and	2	2019,2020	2.286
	Medicine			
28	IEEE ACESS	4	2019,2*2020,2021	4.098
29	Applied Sciences	2	2020	2.217
30	International Journal of Control,	3	2020,2*2021	2.181
	Automation, and Systems			
31	Brain and Behavior	1	2020	2.091
32	IEEE Transactions on Systems,	1	2021	9.30
	Man, and Cybernetics: Systems			
33		1	2021	1.193
	Neuroscience			
34		1	2021	2.849
	Environmental Research and			
	Public Health	07		
	Total	87		
	Ph.D. thesis evaluation	2		
	University: National University of	۷		
	Science and Technology,			
	Pakistan			
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- 1. Aug-2018-till date Review Editor for Frontiers in Robotics and Al (Biomedical Robotics)
- 2. Oct-2019-till date Associate Editor for BMC Musculoskeletal Disorders
- 3. May-Dec 2020 Guest Editor Special Issue "Signal Processing Using Non-invasive Physiological Sensors" MDPI Journal Sensors
- 4. 2020-Technical program chair EAI BODYNETS 2020 15th EAI International Conference on Body Area Networks: Smart IoT and big data for intelligent health management, October 21-22, 2020, Tallinn, Estonia
- 5. Aug-2020-till date Review Editor for Frontiers in Systems Neuroscience
- 6. June- 2021-till date Associate Editor for Journal of Integrative Neuroscience