

UNIVERSITY OF PENNSYLVANIA - PERELMAN SCHOOL OF MEDICINE
Curriculum Vitae

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Michelle Jillian Johnson, PhD

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Education:

1990 BS University of Pennsylvania (Mechanical Engineering and Applied Mechanics)
1994 MS University of California, Irvine (Mechanical Engineering (Emphasis: Robot Mechanical System))
2002 PhD Stanford University (Mechanical Engineering (Emphasis: Robotics, Design, Controls and Mechatronics))

Postgraduate Training and Fellowship Appointments:

2001-2002 NSF-NATO Post-Doctoral Research Fellow, Biomedical Engineering, Scuola Superiore Sant'Anna, ARTS Lab and RTR Center: Applied Research in Rehabilitation Bioengineering, Pontedera, Italy
2002-2003 Post-Doctoral Research Fellow, Biomedical Engineering, Scuola Superiore Sant'Anna, Advanced Robotics Technology and Science (ARTS)Lab, Pontedera, Italy

Faculty Appointments:

2004-2009 Assistant Professor, Physical Medicine and Rehabilitation (PMR), Medical College of Wisconsin, Milwaukee, WI
2004-2013 Research Assistant Professor, Biomedical Engineering, Marquette University, Milwaukee, WI
2008-2010 Adjunct Professor, Physical Therapy, Carroll University, Waukesha, WI
2010-2013 Associate Professor, PMR, Medical College of Wisconsin, Milwaukee, WI
2013-2016 Adjunct Associate Professor, PMR, Medical College of Wisconsin, Milwaukee, WI
2013-2016 Adjunct Research Assistant Professor, Biomedical Engineering, Marquette University, Milwaukee, WI
2013-2020 Assistant Professor of Physical Medicine and Rehabilitation, University of Pennsylvania School of Medicine
2014-2020 Assistant Professor, Department of Bioengineering, School of Engineering and Applied Science, University of Pennsylvania (Secondary Appt), University of Pennsylvania School of Medicine
2020-present Associate Professor of Physical Medicine and Rehabilitation, University of Pennsylvania School of Medicine
2020-present Associate Professor of BioEngineering, University of Pennsylvania, School of Engineering and Applied Science
2020-present Associate Professor of Mechanical Engineering and Applied Mechanics, University of Pennsylvania, School of Engineering and Applied Science

Hospital and/or Administrative Appointments:

2003-2013 Resident Research Coordinator, Physical Medicine and Rehabilitation, Medical College of Wisconsin, Milwaukee, WI
2004-2013 Director, Rehabilitation Robotics Research and Design Laboratory, Clement J. Zablocki VAMC, Milwaukee, WI
2006-2013 Research Director of Undergraduate and Graduate Research, Physical Medicine and

2013-present Rehabilitation, Medical College of Wisconsin, Milwaukee, WI
 Director, Rehabilitation Robotics Lab, University of Pennsylvania
 2014-present Resident Research Director, University of Pennsylvania, Department of Physical
 Medicine and Rehabilitation

Other Appointments:

2009-2016 Visiting Lecturer, Instituto Tecnológico de Monterrey, Chihuahua, Mexico
 2014-present Graduate group member, Department of Mechanical Engineering and Applied Mechanics,
 University of Pennsylvania
 2014-present Graduate group member, Department of Bioengineering, School of Engineering and
 Applied Science, University of Pennsylvania
 2014-present Faculty Member, General Robotics, Automation, Sensing and Perception Lab, GRASP
 2015-present Faculty Member, Center for NeuroEngineering and Therapeutics
 2017 Visiting Professor, Campus Biomedica di Roma, Department of Biomedical Engineering,
 Rome, Italy
 2018-present Founder, Recupero Robotics, UPAdvisor PCI company
 2020-present Graduate group member, Biomedical Graduate Studies, Neuroscience Graduate Group,
 University of Pennsylvania

Awards, Honors and Membership in Honorary Societies (Last 5 years):

2015 Nominated Speaker, TedXPhiladelphia, Theme "And Justice For All"
 2015 'Scientist of the Year' Nominee, Philly Geek Award
 2015 AAMC Faculty Travel Grant Awardee, Office of Inclusion and Diversity, UPENN
 2016 Nominated Speaker, TedxPenn, Theme "Eureka"
 2016 Fellow, Wharton Mack Institute (1st Cohort, Penn Wharton commercialization workshop)
 2017 Invited Visiting Scholar, Campus Biomedica di Roma, Italy
 2017 Keynote Lecturer, RehabWeek 2017, London, UK
 2019 Recipient, Dr. Gloria Twine Chisum Award for Distinguished Faculty Mentor, Awarded
 by James Brister Society, University of Pennsylvania
 2020 Fulbright US Scholar Award
 2021 IEEE EMBS Distinguished Lecturer

Memberships in Professional and Scientific Societies and Other Professional Activities:International:

2001-present Institute of Electrical and Electronics Engineers Robotics and Automation Society
 (Co-Chair, Technical Committee Rehabilitation and Assistive Robotics 2008-2010
 Co-Chair, Technical Committee Rehabilitation and Assistive Robotics 2017-present
 Planning Committee Member 2005
 Academic Exhibitor Committee Member 2005)
 2001-Present Int. Conf. on Rehab. Robotics (ICORR) (Program Committee Member, 2015; Workshop
 Organizer, 2015; Workshop Organizer 2019)

National:

2000-Present American Society of Mechanical Engineers
 2004-Present Society of Women Engineers
 2006-2015 National Institutes of Health (Consultant/Ad-Hoc Reviewer, Musculoskeletal Rehabilitation)
 2008-Present National Science Foundation (Consultant/Ad-Hoc Reviewer)
 2014-2017 Marquette University via grant with National Science Foundation (Co-Robots for
 Compu-Girls Advisory Board Member)
 2015-2018 Advisory Board Member, Rehabilitation Medicine Scientist Training Program (RMSTP),
 American Academy of Physiatry
 2015-Present American Congress of Rehabilitation Medicine (ACRM)
 2015-Present National Institute of Health, Eunice Kennedy NICHD,
 Function, Integration, and Rehabilitation Sciences Sub-Committee (Standing Member)

2017-Present Rehabilitation Engineering Society of North America

Editorial Positions (Last 5 years):

2007-Present Editorial Board Member, J NeuroEng and Rehabilitation
 2013-Present Associate Editor, J Neuro-Eng. and Rehabilitation (JNER)
 2015-2017 Guest Editor, J Rehabilitation and Assistive Technologies Eng. for Special Issue: "Affordable Rehabilitation and Assistive Robots and Technologies for Low Resource Settings in Developed and Developing Countries"
 2016-Present Associate Editor, J Rehabilitation and Assistive Technologies Engineering
 2019-Present Editor, IEEE Biomed. Robotics Conference
 2019-Present Associate Editor, IEEE Robotics and Automation Letters

Academic and Institutional Committees (Last 10 years):

2008-2011 Member, Diversity Committee, Medical College of Wisconsin
 2009-2012 Member, IRB Committee, Medical College of Wisconsin
 2014-Present Adhoc Member, Programs Committee, Physical Med. and Rehabilitation, UPenn
 2015-Present Member, Research Committee, Good Shepherd Penn Partners
 2018-Present Resident Research Committee, Physical Med, and Rehab.
 2018-Present Advisory Board, Clinical Neurosciences Training Program, UPennsylvania

Major Academic and Clinical Teaching Responsibilities (Last 5 years):

2014-Present Course Director, Resident Research Didactics (5 lectures), Spring Seminar, Physical Medicine & Rehabilitation, University of Pennsylvania, Philadelphia, PA. 6 PGY2 Residents each year
 2014-Present Course Director and Course Instructor, BE 514/IPD 504: Rehabilitation Engineering and Design (Every Fall), Departments of Bioengineering and Mechanical Engineering, University of Pennsylvania, Notes: 30 to 40 students each year.
 2014-Present MS Thesis Course Director, ROBO 597: Master's Student Thesis Research, Masters in Robotics Program, GRASP Lab, University of Pennsylvania, PA. Students: Addwiteey Chungoo (2014-2015); Mayumi Mohan (2015-2017)
 2014-Present Course Director/Lecturer, ROBO 599: Independent Study Research, Masters in Robotics, GRASP LAB, University of Pennsylvania, PA. Students: Anushree Singh (F'2014); Seethu Christopher (Sp'2015); Shreyas Shivakumar (F'2016)
 2014-Present Sub-Course Director/Lecturer, BE 599: Master's Independent Study, Department of Bioengineering; University of Pennsylvania, PA. Masters Students work on a semester long research: Samantha Jones (F'2014); Breanna Lyn (Sp 2018); Jenny Cai (Sum 2018)
 2014-Present Course Advisor, Interdepartmental Senior Design, for Departments of Bioengineering (BE 495/496), Mechanical Engineering and Applied Mechanics (MEAM 445/6) and Electrical Systems and Engineering (ESE 450). Biweekly meetings with design teams: Senior Design Teams: BE 495/6 JoyTherapy-TeamR5 (F'2014-Sp2015); BE 495/6 RealTime BabySpotter (F2015-sp2016); MEAM 445/6 Team MoviFlex (F'2015-Sp2016); MEAM 445/6 Kypose-Team 4F'2016 - Sp2017); ESE 450: Theragym-Team15 (F'2016 - Sp2017); ESE 450:BLAST-Team 11(F'2018-Sp 2019);
 2014-Present Research Mentor, Stem Scholars Program (for Talented High School Students), Franklin Institute, Philadelphia, PA Notes: Students rotate in the lab for 8 weeks during the summer: Sidia Mustapha (2014); Evangeline Adjei-Danquah (2015); Zenab Kouyate (2016) Ashley Rossi (2017); Ron Pascal (2018);
 2014-Present Research Mentor, National Science Foundation, Philadelphia Louis Stokes Alliance for Minority Participation, (NSF - LAMP), University of Pennsylvania, Philadelphia, PA. Notes: Diversity summer interns from schools in Philadelphia spend 10 weeks in my lab and complete research on a variety of topics; Students: Elaida Dimwamwa-UPENN BE (Summer 2014), Carina Lott-UPENN BE (Summer 2015), Henok Abraham-UPENN BE (Summer 2015); Andrea Frank-UPENN BE(Summer 2016); Susan Zhao-UPENN MEAM (Summer 2017); Sheila Saberry-PCC MATH(Summer 2015); Toni-Ann Peck-UPENN MEAM (Summer 2018);

	Shyon Small-UPENN-BE (Summer 2018); Elaine Ho-UPENN BE (Summer 2018); Maria Ovando (Summer 2019-present)
2014-Present	Dissertation Committee Member and/or Chair, Mechanical Engineering and Applied Mechanics (MEAM) Graduate Group, University of Pennsylvania, Philadelphia, PA; Notes: Advise PhD students on as aspects of their doctoral work. PhD Students: Rebecca Pierce (2014-2015); Naomi Fitts (2015-2017);); Siyao Hu (2017-2020); Caio Mucchiani (2015-present); Michael Sobrepera (2016-present)
2015-Present	Course Director, BE 490: Independent Study, Department of Bioengineering, University of Pennsylvania, Philadelphia, PA Notes: Undergraduate students in Bioengineering work on a semester long research project in my lab: Elaida Dimwamwa (Sp2015), Henok Abraham (F'2015), Andrea Simi (F'2015), Vatsala Goyal(F'2015, Sp2016), Lia Lombardi(Sp2016)
2015-Present	Medical Student Research Mentor, Physical Medicine and Rehabilitation, University of Pennsylvania, PA. Notes: Medical Students complete a 2 to 3 semesters long research project (Marisa Moreta : Rowan University (2015); Matthew Roland: Temple University Medical School (F'2017- Sp'2018); Christine Kuran: Rowan University (F'2019-present)
2015-present	Dissertation Committee, Bioengineering Graduate Group, University of Pennsylvania, Philadelphia, PA; Notes: Advise PhD students on as aspects of their doctoral work. PhD Students: Kevin Bui (2015-present)
2015-present	Quals Committee Member and/or Chair, Mechanical Engineering and Applied Mechanics (MEAM) Graduate Group, University of Pennsylvania, Philadelphia, PA; Notes: Advise PhD students on as aspects of their doctoral work. PhD Students: Sikang Li (2015); Caio Mucchiani (2015-present); Eric Young (2016); Michael Sobrepera (2016); Siyao Hu (2017)
2018-Present	Teaching Institute of Philadelphia Course, Robots in healthcare: From science fiction to reality, Spring 2018, Taught at UPENN
2018-Present	Course Director, MEAM 99:Master's Independent Study, Department of Mechanical Engineering; Topics in Rehab. Robotics; Students: Enri Kina (F'2018)
2019-Present	ENGR 140 "Robotics and Rehabilitation: A Penn Global Seminar Course" Course Director/Co-Instructor
2020	Guest Lecturer: Case Studies in Design and Rehabilitation Robots, Intro to Robotics Course, Tecnológico de Costa Rica (TEC), San Jose, Costa Rica, Feb 25

Lectures by Invitation (Last 5 years - sampled):

Jun, 2015	"Rehab in a Crate: Affordable Robots for Physical Therapy", TEDxPhiladelphia: And Justice For All, http://tedxphiladelphia.org/speakers/michelle-johnson/ , June 15, Philadelphia, PA
Aug, 2015	"Health and Rehabilitation Capacity in LMICs: Opportunity For Robotics And Assistive Technologies", IEEE Int. Conf. on Rehab. Robotics, Singapore, Singapore
Oct, 2015	"Global Health and STROKE Rehabilitation in LMICs: Opportunity For Affordable Robotic Technologies", American Congress of Rehabilitation-Annual Conference Meeting, Dallas, TX
Mar, 2016	"Assistive Technology and Rehabilitation Engineering Design", Tecnologico di Monterrey (ITESM), Visiting Professor, Chihuahua, Mexico
May, 2017	Panelist, Philly Tech Week, Hosts: Comcast and WURD 900 AM, From Consumer to creator: How the black communities can transform technology consumption into economic power.May 3
Jul, 2017	"Towards Accessible Stroke Rehabilitation using Affordable Robot/Mechatronic Technologies in Low and Middle Income Countries", <i>Keynote Lecture</i> , RehabWeek 2017, July 17-20, London, United Kingdom
Aug, 2017	"Advanced Assistive Technologies for Low and Middle Income Countries", World Health Organization, Global Research Education Assistive Technologies (GREAT) Summit 2017, Expert Panelist, Aug 3-4, Geneva, Switzerland
Oct, 2017	"Rehabilitation Robotics in the 21st Century: A Social Justice Issue?", Invited Faculty Scholar, Penn Alumni Club of Delaware, Oct 17, Wilmington, Delaware
Oct, 2017	"Community-Based Robot-Assisted Stroke Rehabilitation for Developing Countries", Visiting Professor Lecture, Biorobotics Institute, Scuola Superiore Sant'Anna, Oct 30, Pisa, Italy
Oct, 2017	"Designing Inclusively: Rehabilitation Robots and Global Stroke Health", Visiting Professor

- Nov, 2017 Lecture, Campus Biomedica di Roma, Oct 19 - Nov 1, Rome, Italy
"Robot-Assisted Stroke Rehabilitation for Developing Countries", Instituto Tecnológico de Costa Rica (ICTR or TEC), November 4-6, Cartago, Costa Rica
- Mar, 2018 "Defining Social Robot Roles in Rehabilitation Based on Observed Patient-Therapist Interactions in Stroke Therapy", Social Robots in Therapy: Focusing on Autonomy and Ethical Challenges Workshop, HRI Conference, March 4-6, Chicago, Illinois
- Apr, 2018 "Human-Human Interactions During Task-Oriented Stroke Therapy Can Inform Social Robot Roles And Actions", 2017-2018 Bone and Joint Seminar Series, Western University, April 14-18, London, Ontario, Canada
- Oct, 2018 "Robot-Assisted Stroke Rehabilitation for Developed and Developing Countries", University of Technology, October 23, Kingston, Jamaica, West Indies
- Oct, 2018 Webinar Speaker and panelist, IEEE TechEthics Virtual Panel, "How Much Autonomy is Acceptable?", 2 October, <http://bit.ly/TechEthicsOct2018Reg>
- Nov, 2018 "User-driven Design of Rehabilitation and Service Robots for Low-Resource and Community-Based Settings", University of San Diego, Contextual Robotics Institute, Forum 2018 Healthcare Robotics, November 8, San Diego, California, USA
- Nov, 2018 "Gaining Insight into Impairment and Function using Rehabilitation and Service Robots for High-Resource and Low-Resource Settings", Invited Faculty Scholar, James Brister Society Fall Meeting, November 9, Philadelphia, Pennsylvania, USA
- Nov, 2018 "Why Adaptability, Affordability, and Autonomy are Important Considerations for Rehabilitation Robots and Assistive Technology for 21st Century Older Adults?", Expert Panelist, United Nations, International Expert-Conference on Human Rights of older Persons, November 12-13, Vienna, Austria
- Mar, 2019 "Thinking outside the box: Rehabilitation Robots/Technology for Low and High Resource Settings," New York University (NYU) Tandon School of Engineering, Women in AI and Robotics Summit, Brooklyn, NY
- Apr, 2019 "Rehabilitation Robots Harnessing Artificial Intelligence for the 21st Century Older Person: What is Important?" presented at "Why it Matters: AI for Older Persons" Workshop, Organized for 10th Open-Ended Working Group on Ageing, by Department of Economic and Social Affairs, Permanent Mission of Japan to the UN, and AARP, United Nations Headquarters, NY
- Apr, 2019 "Community-Based Rehabilitation Robotics," *Keynote Address*: Annual Accessibility, Rehabilitation, and Movement Science (ARMS) Research Symp., Georgia Tech, Atlanta, GA
- Apr, 2019 "Thinking globally about rehabilitation and robots", American Embassy in Italy invited speaker, RomeCup 2019, Universita' Roma Tre, Dipartimento di Ingegneria, Rome, Italy
- Jun, 2019 "Towards robot-assisted neurorehabilitation for stroke patients with both motor and cognitive impairment", RehabWeek 2019, Toronto, Canada
- Feb, 2020 "The role of high-tech robots in global health: realistic or not?", Women In CAS (WiCAS) *Keynote lecturer*, IEEE Latin American Symposium on Circuits and Systems (LASCAS) Conference, San Jose, Costa Rica
- Apr, 2020 "Using Robots and Mechatronic Systems to Understand Motor and Cognitive Impairment after Brain Injury", CNST Seminar, University of Pennsylvania
- Jul, 2020 36th Annual MINS UnRetreat Symposium, Virtual CrowdCast Conference.
"Machine Learning in NeuroRehabilitation: _A Case Study", Neuromatch Academy, <https://neuromatch.io/academy/>, An online school for Computational Neuroscience.

Bibliography:

Research Publications, peer reviewed (print or other media):

1. Sheppard, Johnson M, Leifer L: A model for peer and student involvement in course assessment Proceedings Frontiers in Education 27th Annual Conference, November 5-8, Pittsburgh, PA. IEEE, 1: 193-200, Nov 1997 Notes: <https://doi.org/10.1109/FIE.1997.644840>
2. Sheppard S, Johnson M, Leifer L: A model for peer and student involvement in formative course assessment. J Eng. Education. ASEE, 87(4): 349-354, Oct 1998. <https://doi.org/10.1002/j.2168-9830.1998.tb00364.x>.
3. Johnson MJ, Van der Loos HFM, Burgar CG, Leifer LJ: Driver's SEAT: Simulation environment for arm

- therapy. 6th Int. Conf. on Rehab. Robotics (ICORR), July 1-2, Stanford, CA. IEEE, : 227-234, July 1999.
4. Johnson MJ, Van der Loos HFM, Burgar CG, Shor P, Leifer LJ: Control strategies for a split wheel car-steering simulator for upper limb stroke therapy. Proceedings 2000 ICRA. Millennium Conference. IEEE Int. Conf. on Robotics and Automation. Symposia Proceedings (Cat. No.00CH37065) 24-28 April, Palo Alto, CA. IEEE, Page: 1372-1377, April 2000 Notes: doi: 10.1109/ROBOT.2000.844789.
 5. Johnson MJ, Van der Loos HFM, Burgar CG, Shor P, Leifer LJ: Principles for designing in motivation into a robotic stroke therapy device. Second Joint EMBS-BMES Conference 2002 - Eng. in Med. and Biol. Society Annual Fall Meeting of the Biomed. Eng. Society, Oct 23-26, Houston, TX IEEE, 3, Oct 2002 Notes: doi: 10.1109/EMBS.2002.1053311.
 6. Leifer LJ, Wagner J, Johnson MJ, Van der Loos HFM: ua-LABs: socio-technical challenges in telerehabilitation, distant learning and universal access to continuing education. Second Joint EMBS-BMES Conference 2002 - Eng. in Med. and Biol. Society Annual Fall Meeting of the Biomed. Eng. Society, Oct 23-26, Houston, TX. IEEE, 3, Oct 2002 Notes: doi:10.1109/IEMBS.2002.1053317.
 7. Johnson MJ, Sheppard SD: Students entering and exiting the engineering pipeline-identifying key decision points and trends. 32nd Annual Frontiers in Education, 6-9 Nov, Boston, MA. IEEE/ASEE, 3, Nov 2002. doi: 10.1109/FIE.2002.1158693.
 8. Johnson MJ, Van der Loos HFM, Burgar CG, Shor P, Leifer LJ: Design and evaluation of Driver's SEAT: A car steering simulation environment for upper limb stroke therapy. Robotica. Cambridge University Press (CUP), 21(1): 13-23, Jan 2003. doi: 10.1017/S0263574702004599.
 9. Guglielmelli E, Johnson MJ, Di Lauro GA, Pisetta A, Perrella Y, Giachetti G, Suppo C, Laschi C, Carrozza MC, Dario P: A Human Centred Design Method for Developing a Robot Appliance. Assistive Technology - Shaping the Future: AAATE 2003 Conference Proceedings, 31 Aug to 3 Sep, Dublin, Ireland. GM Craddock et al. (eds.). IOS Press, 11(1): 529-533, Sep 2003 Notes: Assistive Technology Research Series.
 10. Johnson MJ, Guglielmelli E, Suppo C, Pisetta A, Leoni A, Di Lauro GA, Carrozza MC, Laschi C, Dario P : A Fetch-and-Carry Robot Appliance for Elderly and Disabled Persons. Assistive Technology - Shaping the Future: AAATE 2003 Conference Proceedings, 31 Aug to 3 Sep, Dublin, Ireland. GM Craddock et al. (eds.). IOS Press, 11(1): 534-538, Sep 2003 Notes: Assistive Technology Research Series,
 11. Johnson MJ, Di Lauro GA, Carrozza MC, Guglielmelli E, Dario P: Giving-a-Hand: Human-centred design of a small, counter-top robotic kitchen assistant for elderly and disabled persons. International J Human-friendly Welfare Robotic Systems 4(1): 12-16, 2003.
 12. Johnson MJ, Sheppard SD: Relationships between engineering student and faculty demographics and stakeholders working to affect change. J Eng. Education 93(2): 139-50, April 2004.
 13. Johnson MJ, Trickey M, Brauer E, Xin F: TheraDrive: A new stroke therapy concept for home-based computer-assisted motivating rehabilitation. Proc IEEE Eng. Medicine Biology Society (EMBS) Conference, Sep 1-4, San Francisco, CA. IEEE, 2: 4844-47, Sept 2004. doi:10.1109/IEMBS.2004.1404340
 14. Johnson MJ, Wisneski K, Hermsen A, Smith RO, Walton T, Hingtgen B, McGuire JR, Harris GF: Kinematic implications of learned non-use for robotic therapy. Proceedings of the 2005 IEEE 9th Int. Conf. on Rehab. Robotics, June 28 - July 1, Chicago, IL. IEEE, July 2005 Notes: doi: 10.1109/ICORR.2005.1501054.
 15. Feng X, Johnson MJ, Johnson LM, Winters JM: A Suite of Computer-Assisted Techniques for Assessing Upper Extremity Motor Impairments. IEEE Eng. in Med. and Biol. 27th Annual Conference, 17-18 Jan, Shanghai, China. IEEE, 7, Sept 2005 Notes: doi: 10.1109/IEMBS.2005.1616083.
 16. Johnson MJ, Van der Loos HFM, Burgar CG, Shor P, Leifer LJ: Experimental results using force-feedback cueing in robot-assisted stroke therapy Institute of Electrical and Electronics Engineers Transactions on Neural Systems and Rehabilitation Eng. IEEE, 13(3): 335-348, Sept 2005 Notes: doi: 10.1109/TNSRE.2005.850428.
 17. Johnson MJ, Feng X, Johnson LM, Ramachandran B, Winters JM, Kosasih J: Robotic Systems that Rehabilitate as well as Motivate: Three Strategies for Motivating Impaired Arm Use. The First Annual IEEE Int. Conf. on Biomed. Robotics and Biomechatronics (BioRob), Feb 20-22, Pisa, Italy. IEEE, 1-3, Feb 2006 Notes: doi: 10.1109/BIOROB.2006.1639095
 18. Johnson MJ, Wisneski KJ, Anderson J, Nathan D, Smith RO: Development of ADLER: The Activities of Daily Living Exercise Robot. The First IEEE/RAS-EMBS Int. Conf. on Biomed. Robotics and Biomechatronics (BioRob), 20-22 Feb, Pisa, Italy 1-3: 881-886, Feb. 2006 doi: 10.1109/BIOROB.2006.1639202.
 19. Loureiro RCV, Johnson MJ, Harwin WS: Collaborative tele-rehabilitation: A strategy for increasing

- engagement. The First Annual IEEE Int. Conf. on Biomed. Robotics and Biomechanics (BioRob), 20-22 Feb, Pisa, Italy. 1-3: 596-601, Feb 2006. doi: 10.1109/BIOROB.2006.1639198.
20. Wisneski KJ, Johnson MJ: Insights into Modeling Functional Trajectories for Robot-Mediated Daily Living Exercise Environments. The First Annual IEEE Int. Conf. on Biomed, Robotics and Biomechanics (BioRob), Feb 20-22, Pisa, Italy. IEEE, 1-3: 99-104, Feb 2006. <https://doi.10.1109/BIOROB.2006.1639067>
21. Johnson MJ, Ramachandran B, Paranjape RP, Kosasih JB: Feasibility study of TheraDrive: a low-cost game-based environment for the delivery of upper arm stroke therapy. Proc IEEE Eng. Medicine Biology Society (EMBS) Conference, 30 Aug.-3 Sept, New York, NY. IEEE, 1: 695-8, Aug 2006. [https://doi:10.1109/IEMBS.2006.259971](https://doi.10.1109/IEMBS.2006.259971)
22. Valles KD, Schneider JM, Long JT, Riedel SA, Johnson MJ, Harris GF: Combined sagittal and coronal plane postural stability model. Proceedings of the 28th IEEE Eng. Med Biol Soc (EMBS) Annual Int. Conf., Aug 30-Sept 3, New York, NY. IEEE, 1: 4576-9, Aug 2006. doi: 10.1109/IEMBS.2006.259225.
23. Nathan D, Johnson MJ: Should Object Function Matter During Modeling of Functional Reach-to-Grasp Tasks in Robot-Assisted Therapy? Int. Conf. of the IEEE Eng. in Med. and Biol. Society, 30 Aug.-3 Sept., New York, NY. IEEE, Page: 5695-8, Sept 2006. doi: 10.1109/IEMBS.2006.260085.
24. Johnson MJ: Recent trends in robot-assisted therapy environments to improve real-life functional performance after stroke. J NeuroEng Rehabil. Biomed Central, 3(29), Dec 2006 Notes: doi: 10.1186/1743-0003-3-29.
25. Johnson MJ, Feng X, Johnson LM, Winters JM: Potential of a suite of robot/computer-assisted motivating systems for personalized, home-based, stroke rehabilitation. J NeuroEng Rehabil. Biomed Central, 4(6), March 2007. doi: 10.1186/1743-0003-4-6.
26. Wisneski KJ, Johnson MJ: Quantifying kinematics of purposeful movements to real, imagined, or absent functional objects: Implications for modeling trajectories for robot-mediated ADL tasks. Journal NeuroEng and Rehabilitation. Biomed Central, 4(7), Mar 2007 Notes: doi: 10.1186/1743-0003-4-7.
27. Wisneski KJ, Johnson MJ: Trajectory Planning for Functional Wrist Movements in an ADL-Oriented, Robot-Assisted Therapy Environment IEEE Int. Conf. on Robotics and Automation, 10-14 April, Roma, Italy. IEEE, Page: 3365-70, May 2007 Notes: doi: 10.1109/ROBOT.2007.363992.
28. Nathan D, Johnson MJ: Design of a Grasp Assistive Glove for ADL-focused, Robotic Assisted Therapy after Stroke. IEEE 10th Int. Conf. on Rehab. Robotics, 13-15 June, Noordwijk, Netherlands Page: 943-950, Jun 2007 Notes: doi: 10.1109/ICORR.2007.4428537.
29. Wang S, Johnson MJ: Methods for evaluating interlimb coordination for bimanual robotic therapy after stroke. IEEE 10th Int. Conf. on Rehab. Robotics, 13-15 June, Noordwijk, Netherlands. IEEE, Page: 438-445, June 2007 Notes: doi: 10.1109/ICORR.2007.4428462.
30. Ruparel R, Johnson MJ: A Task-Oriented, Trajectory Planner: Could it Train Stroke Survivors to Move Normally on ADLs? The Second Annual IEEE Int. Conf. on Biomed. Robotics and Biomechanics (BioRob), Oct 19-22, Scottsdale, Arizona IEEE, Page: 813-818 Oct 2008 doi:10.1109/BIOROB.2008.4762930.
31. Shakya Y, Johnson MJ: A mobile robot therapist for under-supervised training with robot/computer assisted motivating systems. 30th Annual Int. Conf. of the IEEE Eng. Med. Biol. Soc., 20-25 Aug. 2008, Vancouver, BC, Canada. IEEE, Page: 4511-4, Oct 2008 Notes: DOI: 10.1109/IEMBS.2008.4650215.
32. Johnson MJ, Loureiro RCV, Harwin W: Collaborative tele-rehabilitation and robot-mediated therapy for stroke rehabilitation at home or clinic. Intelligent Service Robotics 1(2): 1861-2784, 2008.
33. Ruparel R, Johnson MJ, Strachota E, Tehekanov G, McGuire J: Evaluation of the TheraDrive System for Robot/Computer Assisted Motivating Rehabilitation After Stroke. 31st Annual Int. Conf. of the IEEE EMBS, September 2-6, Minneapolis, MN. IEEE, Page: 811-4, Sept 2009 Notes: doi: 10.1109/IEMBS.2009.5332386
34. Xu R, Johnson MJ, Verber M, Kamara S, : Development of an MR safe reach and grasp movement evaluation system to study brain activation patterns after stroke. 31st Annual Int. Conf. of the IEEE EMBS, September 2-6, Minneapolis, MN. IEEE, Page: 911 - 914, Sept 2009. doi: 10.1109/IEMBS.2009.5334674
35. Guastello SJ, Nathan DE, Johnson MJ: Attractor and Lyapunov models for reach and grasp movements with application to robot-assisted therapy. Nonlinear Dynamics, Psychol. and Life Sciences 13(1): 99-121, 2009.
36. Johnson MJ, Schmidt H: Robot assisted neurological rehabilitation at home: Motivational aspects and concepts for telerehabilitation. Public Health Forum. Elsevier, 17(4): 8.e1 - 8.e4, Dec 2009 Notes: <https://doi.org/10.1016/j.phf.2009.09.005>.

37. Nathan DE, Johnson MJ, McGuire JM: Design and validation of a low-cost assistive glove for assessment and therapy of the hand during ADL-focused Robotic Stroke Therapy. J Rehabil Res Dev 46(5): 587-602, 2009.
38. Johnson MJ, Shakya Y, Strachota E, Ahamed SI: Low-cost monitoring of patients during unsupervised robot/computer assisted motivating stroke rehabilitation. Biomed Tech (Berl) 56(1): 5-9, Feb 2011. doi: 10.1515/BMT.2010.050.
39. Paranjape R, Johnson MJ, Strachota E, Tchekanov G, McGuire J: Quantifying impaired arm learned non-use after stroke using unilateral and bilateral steering tasks. IEEE International Conf. on Rehabil Robot, 29 June-1 July 2011, Zurich, Switzerland. IEEE, Aug 2011 doi: 10.1109/ICORR.2011.5975457.
40. Johnson MJ, Wang S, Bai P, Strachota E, Tchekanov G, Melbye J, McGuire J: Bilateral assessment of functional tasks for robot-assisted therapy applications. Med Biol Eng. Comput 49(10): 1157-71, Oct 2011 Notes: doi: 10.1007/s11517-011-0817-0
41. Loureiro RCV, Harwin WS, Nagai K, Johnson MJ: Advances in upper limb stroke rehabilitation: a technology push. Med Biol Eng Comput 49(10): 1103-1118, Oct 2011 Notes: doi: 10.1007/s11517-011-0797-0.
42. Xu R, Johnson MJ: Evaluating motor performance after stroke with a custom MR-conditional upper extremity reach and grasp system. 4th IEEE RAS & EMBS Int. Conf. on Biomed. Robotics and Biomechanics (BioRob), Jun 24-27, Rome, Italy Page: 1995-2000, Jun 2012 doi: 10.1109/BioRob.2012.6290818
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2. Shoreline Productions: "Robots in Rehab" with Dr. Michelle Johnson at Penn Medicine Youtube Video, Shoreline Productions Aug 2017.
3. GirlPowered: <https://www.girlpowered.com>: GirlPowered Spark Series: Michelle Johnson. YouTube Video, REC Foundation <https://www.roboticseducation.org/> Feb 2019.

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