

Professor of Electrical & Computer Engineering (Tenured), Faculty of Applied Science, University of British Columbia (first appointed as Assistant Professor in 2002).

Director, Advanced Materials & Process Engineering Laboratory (AMPEL) – 30 principal investigator materials science and engineering centre at UBC. Lead Principal Investigator, Mend the Gap – 30 investigators, 11 universities.

### Degrees:

University or Institution	Degree	Subject Area	Dates
Massachusetts Institute of Technology	Ph.D. <sup>1</sup>	Mechanical Engineering	1994 – 2000
McGill University	M.Eng. <sup>2</sup>	Biomedical Engineering	1992 – 1994
University of British Columbia	B.Sc. <sup>3</sup>	Honours Physics	1986 – 1991

*Students:* Current: 5 PhD, 4 M.A.Sc., Graduated past 5 years: 5 PhD, 6 Masters. Undergrad research students in past 5 years: 57.

*Funding:* Current: PI on \$25 million in grants, including lead PI on a \$24 million, 30 investigator spinal cord injury international project, and the 5<sup>th</sup> phase (\$200,000 per year) of an automotive industry funded project on sensor applications in robotics, plus other battery and medical device work.

*Citations:* Google Scholar H-index 45 (28 since 2017), i10: 106

**Publications:** Past 5 years 25 Journal, 18 conference, 14 patents and applications including:

91. **Y. Dobashi**, Dickson Yao, Yael Petel, Tan Ngoc Nguyen, Mirza Saquib Sarwar, Yacine Thabet, Cliff LW Ng, Ettore Scabeni Glitz, Giao Tran Minh Nguyen, Cédric Plesse, Frédéric Vidal, Carl A Michal, John DW Madden, “Piezoionic Mechanoreceptors”, **Science**, 376 (6592), 502-507, 2022.
90. **J.D.W. Madden**, “Unraveling DNA inspires artificial muscle”, **Science Robotics** **6:53**, 2021
89. **Y Dobashi**, JC Ku, C Pasarikovski, J Ramjst, JDW Madden, K Walus, VXD Yang, “Dynamically tunable intravascular catheter delivery of hydrogels for endovascular embolization”, **MRS Advances**, 1-6, 2021.
84. **Ngoc Tan Nguyen**, **Mirza Saquib Sarwar**, **Claire Preston**, **Aziliz Le Goff**, *et al.*, “Transparent stretchable capacitive touch sensor grid using ionic liquid electrodes”, **Extreme Mechanics Letters** **33**, November 2019.
83. **Saeedeh Ebrahimi Takalloo**; *et al.* “Impermeable and compliant: SIBS as a promising encapsulant for ionically electroactive devices”, **Robotics** **8(3)**, November 2019, page 60.
82. **Saeedeh Ebrahimi Takalloo**; Fannir, Adelyne; Nguyen, Giao; Plesse, Cedric; Vidal, Frederic; Madden, John DW “Evaluating performance of wet unencapsulated PEDOT trilayer actuators operating in air and water”, **Multifunctional Materials**, online Feb 2019, Article reference: MFM-100078.R2.
80. **G. Allegretto**, **Y. Dobashi**, **K Dixon**, **Justin Wyss**, **Dickson Yao** and John D W Madden, “Frequency domain analysis of droplet-based electrostatic transducers”, **Smart Materials and Structures**, 27(7), p. 74007, 2018.
79. Kenneth KC Lee, **Yuta Dobashi**, Peter R Herman, John DW Madden, Victor XD Yang, “Improved charging and strain rates by laser perforating polypyrrole actuator electrodes”, **Smart Materials and Structures** **28** (1), 2018.
78. **Ngoc Tan Nguyen**, **Yuta Dobashi**, *et al.*, “Nonlinear dynamic modeling of ultrathin conducting polymer actuators including inertial effects”, **Smart Materials & Structures** **27** (11), page 115032 Oct 2018.
73. **Y. Dobashi**, A. Fannir, **M. Farajollahi**, **A. Mahmoudzadeh**, **A. Usgaocar**, **D. Yao**, *et al.*, “Ion Transport in Polymer Composites with Non-Uniform Distributions of Electronic Conductors” **Electrochimica Acta** **247**, 149-162, 2017.
72. **Mirza Saquib Sarwar**, **Yuta Dobashi**, **Claire Preston**, **Justin KM Wyss**, *et al.*, “Bend, stretch, and touch: Locating a finger on an actively deformed transparent sensor array”, **Science Advances** 2017.

### Patents

21. **Tan Ngoc Nguyen**, John D.W. Madden, Claire Preston, Austin Lee, Washable and Stretchable Rechargeable Battery, PCT/CA2020/050866, June 2020.
15. **Yuta Dobashi**, **John D.W. Madden**, **Mirza Saquib Sarwar**, SURFACE SENSOR ARRAYS USING IONICALLY CONDUCTING MATERIAL, **U.S. Patent 10,401,241**, Issued Sept 3, 2019. Provisional Patent Application (65 pages, 44 claims), June, 2016. (PCT filed June 2017, US20170356815A1).
11. John DW Madden, **Mirza Saquib Sarwar**, FLEXIBLE TRANSPARENT SENSOR WITH IONICALLY CONDUCTIVE MATERIAL, **U.S. Patent 10,724,908**, 28 July 2020.