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EDUCATION:

University of Massachusetts, Lowell, MA Electrical Engineering B.S., 1990

PROFESSIONAL EXPERIENCE:

2003-Present Senior Engineer, Advanced Engineering Laboratory, Woods Hole Oceanographic Institution, Woods Hole, MA

1993-2003 Principal Engineer and Manager, CardioFocus, Inc., Marlborough, MA

1990-1993 Senior Project Engineer, Fiberspar, Inc., New Bedford, MA

1987-1990 Project Engineer, USCI Division, C.R. Bard, Inc., Lowell, MA

Member of the Institute of Electrical and Electronics Engineers (IEEE)

PATENTS:

US Patent #8444639 (May 21, 2013), #8366705 (Feb. 5, 2013), and #8025661 (Sept. 27, 2011) – “Coaxial catheter instruments for ablation with radiant energy.” Arnold, J.M., E.L. Sinofsky, L.S. Baxter, and **N.E. Farr**.

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US Patent #8152795 (Apr. 10, 2012) – “Method and device for cardiac tissue ablation.” **Farr, N.E.** and W.E. Weiler.

US Patent #7953326 (May 31, 2011) – “Systems and methods for underwater optical communication.” **Farr, N.E.**, L. Freitag, J. Preisig, D.R. Yoerger, S.N. White, and A.D. Chave.

US Patent #7357796 (Apr. 15, 2008), #6953457 (Oct. 11, 2005), and #6423055 (July 23, 2002) – “Phototherapeutic wave guide apparatus.” **Farr, N.E.** and W.E. Weiler.

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US Patent #5643253 (July 1, 1997) – “Phototherapy apparatus with integral stopper device.” Baxter, L.S., **N. Farr**, and E.L. Sinofsky.

US Patent #5275594 (Jan. 4, 1994) – “Angioplasty system having means for identification of atherosclerotic plaque.” Baker, G.S., M.G. Dumong, M. Madden, and **N.E. Farr**.

PUBLICATIONS:

2013

Bowen, A.D., M.V. Jakuba, **N.E. Farr**, J. Ware, C. Taylor, D. Gomez-Ibanez, C.R. Machado, and C. Pontbriand (In press) “An Un-Tethered ROV for Routine Access and Intervention in the Deep Sea.” MTS/IEEE OCEANS 2013 Conference, San Diego, CA, 23-26 Sept.

Farr, N.E., J.D. Ware, C.T. Pontbriand, and M.A. Tivey (In press) “Demonstration of Wireless Data Harvesting from a Subsea Node Using a ‘Ship of Opportunity’.” MTS/IEEE OCEANS 2013 Conference, San Diego, CA, 23-26 Sept.

2012

Camilli, R., **N. Farr**, C. Pontbriand, J. Kapit, J. Ware, O. Pizarro, and J. Whelan (2012) “Long-term Benthic Boundary Layer Monitoring at the Mississippi Canyon block 118 Hydrates Observatory.” Abstract 12681 presented at 2012 Ocean Sciences Meeting, Salt Lake City, UT, 20-24 Feb.

Kapit, J., R. Camilli, **N. Farr**, J. Ware, C. Pontbriand, B. Hamner, and S. Backus (2012) “Improving the Sustainability of Long-term Uncabled Hydrate Observatories: Technologies for Efficient Data Retrieval and Renewable Power.” Abstract 12688 presented at 2012 Ocean Sciences Meeting, Salt Lake City, UT, 20-24 Feb.

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- Tivey, M., **N. Farr**, J. Ware, and C.T. Pontbriand (2010) An integrated optical/acoustic communication system for seafloor observatories. Eos Trans. AGU 91(52), Fall Meet. Suppl., Abstract U43A-05.
- Tivey, M., **N. Farr**, J. Ware, C. Pontbriand (2010) “An Integrated Optical/Acoustic Communication System for Seafloor Observatories: A Field Test of High Data Rate Communications at CORK 857D.” Abstract U43A-0005 presented at 2010 Fall Meeting, AGU, San Francisco, CA, 13-17 Dec.

2008

- Pontbriand, C., **N. Farr**, J. Ware, J. Preisig, and H. Popenoe (2008) “Diffuse, High Bandwidth Optical Communications.” MTS/IEEE OCEANS 2008 Conference, Quebec City, Canada, 15-18 Sept.

2006

- Farr, N., A.D. Chave, L. Freitag, J. Preisig, S.N. White, D. Yoerger, and F. Sonnichsen** (2006) “Optical Modem Technology for Seafloor Observatories.” MTS/IEEE OCEANS 2006 Conference, Boston, MA, 18-21 Sept.
- Farr, N., A.D. Chave, L. Freitag, J. Preisig, S.N. White, D. Yoerger, F. Sonnichsen, P. Titterton, J. Bolstad, and D. Leonard** (2006) “Optical Modem Technology for Seafloor Observatories.” IEEE/OES 4th International Workshop on Scientific Use of Submarine Cables and Related Technologies, Dublin, Ireland, 8-10 Feb.
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2002

Lemery, R., J.P. Veinot, A.S.L. Tang, M. Green, **N. Farr**, L. Baxter, J. McIntyre, and E. Sinofsky (2002) Fiberoptic balloon catheter ablation of pulmonary vein ostia in pigs using photonic energy delivery with diode laser. *PACE* 25(1): 32-36.

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Lemery, R., J. Veinot, A. Tang, M. Green, **N. Farr**, L. Baxter, J. McIntyre, and E. Sinofsky (2001) Fiberoptic balloon catheter ablation of pulmonary vein ostia in pigs using photonic energy delivery with diode laser. *J. Am. Coll. Cardiol.* 37(2): 88A-89A.

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