

## Robin Jacob Pottathuparambil

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### WORK EXPERIENCE

Period	Job Title	Employer
Sep 2022 – Present	Clinical Associate Professor	University of North Texas at Denton, Texas, USA
Nov 2021 – Aug 2022	Clinical Assistant Professor	University of North Texas at Denton, Texas, USA
Sep 2018 – Oct 2021	Senior Lecturer	University of North Texas at Denton, Texas, USA
Jan 2015 – Aug 2018	Lecturer	University of North Texas at Denton, Texas, USA
Aug 2013 – May 2014	Visiting Lecturer	University of North Carolina at Charlotte, North Carolina, USA
Aug 2012 – Dec 2012	Instructor	University of North Carolina at Charlotte, North Carolina, USA
Jan 2013 – May 2013 Sep 2010 – May 2012	Research Assistant	University of North Carolina at Charlotte, North Carolina, USA
May 2010 – Sep 2010	Electrical Engineering Intern	Stoneridge Technology, Maryland, USA
Jan 2007 – May 2010	Teaching Assistant / Lab Instructor	University of North Carolina at Charlotte, North Carolina, USA
Apr 2005 – Jun 2006	Embedded Application Developer	Elfsys Embedded Solutions, New Delhi, India
Jan 2003 – Apr 2005	Firmware Design Engineer (Part-time)	Airmed Medical Systems, New Delhi, India
Apr 2002 – Jan 2003	Programmer Analyst Trainee	Cognizant Technologies Solutions, Chennai, India

### SERVICE

<b>Advising</b>	I am an active member of the Undergraduate Studies Committee (USC) and the <b>Undergraduate Program Coordinator for Computer Engineering</b> . I also advise computer engineering undergraduate students for classes and curriculum.
<b>Curriculum Development</b>	I have designed and developed online classes for Computer Organization and Computer Networks. I have designed undergraduate and graduate level classes like Introduction to Computer Architecture and Embedded Hardware/Software Design class. I have created hands-on labs for many computer engineering classes. I have revised many classes like Embedded Systems Design, Reconfigurable Logic, Computer Organization, Computer Networks, Communication Systems, and Wireless Communication.
<b>Mentoring</b>	I mentor several senior design projects that are sponsored by the industry and NASA TSGC. I have mentored and advised master's students and directed study projects. I have also mentored student organizations.
<b>Committee Member</b>	I have been a committee member in many faculty searches, and I was also a committee member in chair search committee and executive committee.

## EDUCATION

Degree	Major	University	Period
Ph.D.	Electrical Engineering	University of North Carolina at Charlotte, North Carolina, USA	2007 – 2013
M.S.	Electrical Engineering	Indian Institute of Technology (IIT), New Delhi, India	2003 – 2005
B.E.	Electrical and Electronics Engineering	University of Madras, Chennai, India	1997 – 2001

## FUNDED SENIOR DESIGN PROJECTS

1. Cloud Based Electronic Debugging, Sponsored by Anora, LLC, \$2,000, Aug 2023 – May 2024
2. PCB Pick and Place Project, Sponsored by Anora, LLC, \$2,000, Aug 2023 – May 2024
3. Power Termination, Diversion, and Notification using COSMIC (Carbon mOnoxide Smoke Interrupting Circuit), Sponsored by COEVAC, LLC, \$2,000, Aug 2023 – May 2024
4. Programmable Electrical Switch, Dimmer, and Outlet for Appliances, MR Smart Solutions Inc, \$2,000, Aug 2023 – May 2024
5. Light-Fidelity System (Li-FiS), Sponsored by NASA TSGC, \$2,400, Aug 2022 – May 2023
6. AFTOS: Adaptive Fiducial Tracking Optical System, Sponsored by Anora, LLC, \$4,500, Aug 2022 – May 2023
7. Off Grid Eyes, Sponsored by COEVAC, LLC, \$2,000, Aug 2022 – May 2023
8. Forest Fire Detection System, Sponsored by Extreme Research, LLC, \$2,000, Aug 2022 – May 2023
9. Machine Learning Human Computer Interface System (MHIS), Sponsored by NASA TSGC, \$2,000, Aug 2021 – May 2022
10. Advanced Spacecraft Lighting Control System, Sponsored by NASA TSGC, \$3,500, Aug 2020 – May 2022
11. Water Monitoring System for Automated Inland Shrimp Production, Sponsored by HoneyCombe Farm, LLC, \$4,000, Aug 2020 – May 2022
12. Power Termination, Diversion, and Notification using COSMIC (Carbon mOnoxide Smoke Interrupting Circuit), Sponsored by COEVAC, LLC, \$6,000, Aug 2019 – May 2021
13. Auto DIT Project, Sponsored by a startup, \$2,000, Aug 2020 – May 2021
14. Private Cloud with Wireless Internet of Things (IoT), Sponsored by NASA TSGC, \$3,700, Aug 2019 – May 2021
15. Vehicle Interchangeable Electronic Controller (VIEC) Network System, Sponsored by NASA TSGC, \$5,700, Jan 2018 – May 2020
16. IoT Based Smart Canopy Lighting, Sponsored by Intelativ LLC, \$2,000, Aug 2018 – May 2019
17. Sleep Apnea Monitor Diagnosis System, Sponsored by Dr. Edwin Simon, \$4,000, Aug 2017 – May 2019
18. Spacecraft Lighting Network System, Sponsored by NASA TSGC, \$4,000, Aug 2017 – May 2019
19. Smart Home and Security System, Sponsored by Intelativ LLC, \$1,000, Aug 2017 – May 2018
20. Intelligent Lighting Control, Sponsored by NASA TSGC, \$4,000, Aug 2016 – May 2018.
21. IPv6 Addressing in Space, Sponsored by NASA TSGC, \$1,975, Aug 2016 – May 2017
22. Smart Street Light, Sponsored by Acculight LLC, \$10,000, Aug 2015 – May 2017.

## CONTRACTS AND GRANTS

1. Camp ImagineIT Summer Program, funded by Texas Workforce Commission (TWC), \$98,176, PI (Credit – 100%), April 2023 – Aug 2023
2. National Convergence Technology Center Renewal no cost extension, sponsored by NSF, \$42,149, Supporting, \$9,750, Sep 2022 – Jun 2023
3. MS Pathways to Computing Consortium Capacity Grant for developing bridge courses that will allow students from non-tech backgrounds to pursue MS in computing, Supporting, \$3,500, Sep 2022 – Dec 2022

4. Accelerating Credentials of Purpose and Value Grant Program: Creation of pathways for online information technology and pathways for graduate programs in artificial intelligence and data engineering, Texas Higher Education Coordinating Board (TheCB) curriculum development funding, Supporting, \$12,000, Mar 2022 – Sep 2022
5. Explore STEM! 2021 Summer Program, funded by Texas Workforce Commission (TWC), \$130,203, Co-PI (Credit – 30%), Feb 2021 – Oct 2021
6. Explore STEM! 2020 Summer Program, funded by Texas Workforce Commission (TWC), \$116,972, Co-PI (Credit – 50%), Jan 2020 – Aug 2020 (Cancelled by UNT due to COVID)
7. North Texas Coding Academy Summer Camp, funded by Texas Workforce Commission (TWC), \$87,912, Co-PI (Credit – 23.5%), Mar 2020 – Dec 2020 (Cancelled by UNT due to COVID)
8. Explore STEM! 2019 Summer Program, funded by Texas Workforce Commission (TWC), \$88,667, Co-PI (Credit – 33%), Apr 2019 – Mar 2020
9. Intel Hardware Accelerator Research Program, Sponsored by Intel, Nov 2017 – Nov 2018.

## PUBLICATIONS

1. Fernando Mosquera and **Robin Pottathuparambil**, “RESL: A Web Browser Based Remote Embedded System Laboratory”, Proceeding of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2018, Las Vegas, NV, Oct 15, 2018
2. Fernando Mosquera and **Robin Pottathuparambil**, “Remote Embedded System Lab (RESL)” In the Proceedings of the 54th Annual Conference of Association for Computer Educators in Texas (ACET), Waco, TX, Oct 19 – 20, 2018
3. Clement Cole and **Robin Pottathuparambil**, “Implementation of Data Flow Graph Architecture on a Heterogeneous System”. In the Proceedings of Second Annual Texas Symposium on Computing with Emerging Technologies (ComET), Dallas, TX, April 23, 2018
4. **Robin Pottathuparambil** and Ron Sass, “An FPGA-Based Neural Network for Computer Vision Applications”, Proceeding of FPL 2011 Workshop on Computer Vision on Low-Power Reconfigurable Architectures, Chania, Crete, Greece, Sep 4, 2011
5. Shweta Jain, **Robin Pottathuparambil**, and Ron Sass, “Implications of Memory Efficiency on Sparse Matrix-Vector Multiplication”, Proceedings of the 2011 Symposium on Application Accelerators in High-Performance Computing (SAAHPC ‘11), Knoxville, Tennessee, Jul 19 – 21, 2011
6. **Robin Pottathuparambil**, Jack Coyne, Jeffrey Allred, William Lynch and Vincent Natoli, “Low-latency FPGA Based Financial Data Feed Handler”, Proceedings of the 19th Annual IEEE International Symposium on Field-Programmable Custom Computing Machines (FCCM 2011), Salt Lake City, Utah, May 1 – 3, 2011
7. **Robin Pottathuparambil** and Ron Sass, “FPGA-based three-body molecular dynamics simulator”, Proceedings of the 2010 International Conference on High Performance Computing & Simulation (HPCS 2010), Caen, France, Jun 28 – Jul 2, 2010
8. **Robin Pottathuparambil**, Ryan S. Adams and Ron Sass, “An FPGA Implementation of 3-D FDTD Field Compute Engines”, Proceedings of the 16th International Symposium on Field-Programmable Custom Computing Machines (FCCM 2009), Napa, California, USA, Apr 5 – 7, 2009
9. **Robin Pottathuparambil** and Ron Sass, “A Parallel/Vectorized Double-Precision Exponential Core to Accelerate Computational Science Applications”, Proceedings of the ACM/SIGDA International Symposium on Field Programmable Gate Arrays (FPGA 2009), Monterey, California, USA, Feb 22 – 24, 2009
10. **Robin Pottathuparambil** and Ron Sass, “Implementation of a CORDIC-based Double Precision Exponential Core on an FPGA”, Proceedings of the Fourth Annual Reconfigurable Systems Summer Institute (RSSI ‘08), Urbana, Illinois, USA, Jul 7 – 9, 2008
11. Nesar Ahmad and **Robin Pottathuparambil**, “Design of a Simplified Fuzzy Inference Engine Using FPGA”, Journal of Control and Intelligent Systems, ACTA Press, Vol. 35, 2007
12. **Robin Pottathuparambil** and Nesar Ahmad, “Implementing a Simplified Fuzzy Inference Engine on a FPGA”, Proceedings of the First National Conference on Control and Dynamical Systems (NCCDS 2005), IIT Bombay, India, January 27 – 28, 2005.

## AWARDS AND HONORS

- College of Engineering Teaching Award, UNT, 2023
- Team awards from TSGC NASA Showcase event, 2016 – 2022
- Honors Day Recognition, 2016, 2017, 2018, and 2019
- Thank-a-Teacher Program Recognition, 2016, 2017, 2019
- Nominated from the department for the College of Engineering Teaching Award, UNT, 2018
- Most Significant and positive contributor to undergraduate education, 2014 – 2015
- 2010 ECE Outstanding Graduate Teaching Assistant Award, UNC Charlotte
- Third in 2009 Annual Graduate Research Across the Disciplines, UNC Charlotte
- Travel Awards for attending conferences, 2007 – 2011
- Awarded Graduate Assistant Support Plan (GASP), 2007 – 2011, UNC Charlotte
- Topped 9th position in the university at my undergraduate education, 2001.