

Stephen Parke, PhD, PE
Professor of Engineering
Northwest Nazarene University
Nampa, ID

Steve was born and raised in southwestern Indiana. He graduated from Southridge HS in Huntingburg, received an AA degree in Engineering from Olivet Nazarene University in 1980, and BS and MS degrees in Electrical Engineering from Purdue University in 1982 and 1984, respectively. His MS graduate school advisor was Dr. Gerold Neudeck. He played trombone in both the Olivet and Purdue Bands. Steve interned with IBM in both Burlington, Vermont and the IBM Research Center in Yorktown, New York, working on bipolar memory and NMOS microprocessor chip designs.

From 1984-1996, Steve was with IBM Microelectronics in Burlington, VT and Fishkill, NY, where he worked in research and development of IBM's 4Mb, 16Mb, 64Mb, and 256Mb CMOS DRAM processes, transistors, cells, and ICs. He was blessed to work under the mentorship of Dr. Dale Critchlow, IBM Fellow. Steve served as an adjunct professor of electrical engineering for the University of Vermont. He met Leola Tassie at the Burlington/Williston Nazarene Church and they were married in 1986. God blessed them with three children: Kristen, Brian, and Joshua.

From 1989-1993, Steve completed his PhD at University of California, Berkeley on an IBM PhD fellowship. Steve was blessed to study under the mentorship of Drs. Ping Ko and Chenming Hu. He designed, fabricated and studied the behavior of novel nanoscale silicon-on-insulator transistors, including the Dynamic Threshold MOSFET (DTMOS) for ultra-low-power portable electronics applications.

From 1996-2006, Steve joined Boise State University in the creation of its new College of Engineering. He helped lead the development of BSU's ECE program over its first ten years, including initial ABET accreditation. Steve founded and directed the Idaho Microfabrication Lab at BSU, which now supports significant semiconductor and materials research.

From 2006-2010, Steve was Chair of the Electrical and Computer Engineering Dept. at Tennessee Tech University. While at TTU, Steve initiated the "20/20 Vision" plan for revitalization of the curriculum, laboratories, and endowments. He raised \$2 million in funding to create the new DENSO Capstone Design Lab, the TVA Power Relay Lab, the Bio/Opto/Nano Devices (BOND) Lab, and the new EDGE Renewable Energy Lab.

From 2002-2012, Steve was involved in the successful, Boise start-up company, American Semiconductor, which employs some of his former students. Steve is a registered Professional Engineer in the state of Idaho. He is an ABET Program Evaluator, an IEEE Distinguished Lecturer, was founder of the Boise IEEE Electron Devices Society Chapter, co-founder of the Boise IEEE Workshop on MicroElectronic Devices (WMED), Treasurer of EDS international, and in 2000, Steve was awarded the prestigious IEEE Third Millennium Medal for his service.

Since 2010, Steve has been Professor of Engineering at Northwest Nazarene University, Nampa, ID. He has led the formation of a strong Industry & Alumni Advisory Board and together with his colleagues has won several equipment and research grants to support the new NNU Engineering Program, about which he is passionate. Since Dec. 2017, he has served as the Chair of the Physics & Engineering Dept.

Steve's research is in the areas of Nanoscale Transistors, Flexible integrated circuits, RF systems, and Cube Satellites. He holds 16 patents and is the inventor of the FlexFET and

DTMOS transistors. He and his students investigate the physics, modeling, and applications of these nanoscale transistors. They also incorporate these technologies into aerospace applications. Steve and his students have jointly published over 75 papers/presentations and have launched three orbital satellites and six sub-orbital experiments into space.

Steve has been successful at initiating many partnerships between universities and industry that have had a broad impact on the quality of engineering education, curriculum, and research, at Boise State, Tennessee Tech, and Northwest Nazarene universities. He is quite passionate about leading annual engineering student mission teams around the world each year on humanitarian projects, in places like Myanmar, Papua New Guinea, Peru, Argentina, and Kenya.

Steve loves music, hiking in Idaho's mountains, and being a grandpa. Steve's mission is to help prepare young engineers for a Christ-centered career of service to society.

CURRICULUM VITAE

STEPHEN A. PARKE, Ph.D., P.E.

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FAMILY

- Married to: Leola Tassie Parke for 35 years
- Children: Kristen & Kyle Mayer (NNU grads), Brian & Ashlynn Parke, Joshua Parke
- Five Grandchildren

EDUCATION

- Regents Academic Leadership Institute (RALI) Nashville, TN, May 2007- May 2008
- Ph.D. Electrical Engineering 1993, Minor: Materials Science Engineering
 - University of California, Berkeley, CA
- M.S. Electrical Engineering 1984
 - Purdue University, West Lafayette, IN
- B.S. Electrical Engineering 1982 with Honors,
 - Purdue University, West Lafayette, IN
- A.A. Pre-Engineering 1980,
 - Olivet Nazarene University, Kankakee, IL
- High School Valedictorian 1978,
 - Southridge High School, Huntingburg, IN

HONORS AND AWARDS

- Sigma Xi, the Scientific Research Honor Society in 2007
- Named a Millennium Medalist in 2000 by the Institute of Electrical and Electronics Engineering (IEEE)
- Elected in 1997 as a Senior Member of IEEE
- Awarded an IBM PhD Doctoral Research Fellowship, 1989-1993
- Eta Kappa Nu Electrical Engineering Honor Society in 1982
- Tau Beta Pi Engineering Honor Society in 1982

PROFESSIONAL LICENSES AND MEMBERSHIPS

- Licensed Professional Engineer (PE) in the State of Idaho (1998-present)
- Institute of Electrical and Electronics Engineers (IEEE) (1984-present)
- American Society for Engineering Education (ASEE)
- Christian Engineering Society (CES)

PROFESSIONAL LEADERSHIP ACTIVITIES

- National ABET Engineering Accreditation Program Evaluator, 2011-present
- International Distinguished Lecturer IEEE Electron Device Society 2011-present
- IEEE Global Humanitarian Technology Council 2012-present
- Treasurer & Executive Committee for the IEEE Electron Devices Society 2006-2011
 - membership of over 10,000 engineers & scientists worldwide
 - I was responsible for a \$1million annual budget and a \$6million endowment
- Member IEEE EDS Educational Activities Committee 1998-2006
- Tech. Comm. Member IEEE International SOI Conference 2005-2008
- Founder & Chairman IEEE Electron Devices Society Boise Chapter 1998-2006
- Organizer IEEE EDS Workshop on Microelectronics & Electron Devices 2002-present
- General Chairman IEEE University/Government/Industry Microelectronics Symposium 2003
- Chairman Western US Virtual Engineering Consortium (WESTVEC) 1997-1999

ACADEMIC EXPERIENCE

Dec 2017 – present

Chair, Department of Physics and Engineering, Northwest Nazarene University, Nampa, ID

August 2010 – Dec 2017

Professor and Engineering Program Director, Northwest Nazarene University, Nampa, ID

Led start-up and initial accreditation of new Bachelor of Science in Engineering program

Created Engineering Industry/Alumni Advisory Board of 25 prominent regional leaders

Recruited four new faculty & staff

Worked with NNU Advancement to fundraise over \$1million for Engineering program & scholarships

Worked with NNU Marketing to publicize new Engineering program and NASA projects

Worked with NNU Admissions to grow Engineering enrollment from 11 to 85 students

Represented NNU in many K-12 STEM outreach activities across the State

Worked with NNU Career Center and regional Industry to help place our first 38 graduates

Organized and travelled on seven NNU Engineering Mission Trips throughout the worldwide Nazarene church

Mentored ten NASA student design teams to national prominence

Developed curriculum for four new Engineering concentrations

Served on Academic Council 5 years, President's Organizational Comm., Chaplain Search Comm.

April 2008

Finalist for Dean of Engineering at Tennessee Tech University

August 2006 – August 2010

Professor and Chair, Department of Electrical and Computer Engineering, Tennessee Tech University, Cookeville, TN

Led a large dept. of 350 undergrads, 100 MS&PhD students, 17 faculty and 5 staff

Managed an annual budget of \$2million and annual research grants of \$1.5million

Created and began implementation of the "2020 Vision" strategic plan for growth and renewal of the teaching and research lab/building infrastructure and re-engagement with industry and alumni base

Finalist for TTU Dean of Engineering until State hiring freeze

April 2006

Finalist for Dean of Engineering at Seattle Pacific University

August 2000 – August 2006

Associate Professor of Electrical Engineering, Boise State University, Boise, ID

January 1997 – August 2001

Founder and Director, Idaho Microfabrication Lab at Boise State University, Boise, ID

August 1996 – August 2000

Assistant Professor of Electrical Engineering, Boise State University, Boise, ID

First EE professor hired in new BSU Engineering program, helped recruit Dean Russell and ten new ECE faculty

Initial curriculum development for electrical engineering & microelectronics

Initial ABET accreditation in 1998

Fundraising \$6million+\$6million for new Micron Engineering Center building with Dean Russell

Fundraising \$2million from Hewlett Packard for new lab equipment with Dean Russell and Bob Deely

Start-up of laboratories, Master of Science in EE program in 2000, PhD in EE program in 2005

Student Enrollment Growth from 20 to 300 ECE students

August 1989 – January 1993

IBM PhD Fellowship, University of California, Berkeley, CA

August 1987 – May 1989

Adjunct Professor of Electrical Engineering, University of Vermont, Burlington, VT

August 1982 – May 1984

Graduate Teaching Assistant, Purdue University, West Lafayette, IN

INDUSTRY EXPERIENCE

August 2006 – 2016

Board of Directors, American Semiconductor, Inc., Boise, ID

January 2002 – August 2006

Co-founder and Chief Scientist, American Semiconductor, Inc., Boise, ID

I worked to develop the IP portfolio and Technical Leadership of this successful Boise-based company along with my former BSU students. They have been a great NNU partner and now employ NNU engineering graduates.

August 1999 – December 2001

Chief Technical Officer, Wireless Systems, Inc., Boise, ID
Helped start this BSU research spin-off company, but it failed just after 9/11
May 1997 – August 1997
Visiting Faculty Researcher, Micron Technology, Boise, ID
Worked in CMOS Device Modelling R&D group
January 1993 – August 1996
Senior Device/Memory Design Engineer, IBM Microelectronics, Fishkill, NY
Led testing team for the Triad alliance between IBM, Toshiba, and Siemens for 256Mb DRAM chip R&D
August 1984 – January 1993
Associate Device/Memory Design Engineer, IBM Microelectronics, Burlington, VT
Worked under mentorship of IBM/IEEE Fellow, Dr. Dale Critchlow on advanced memory technology.
May 1983 – August 1983
Graduate Research Intern, IBM T.J. Watson Research Center, Yorktown, NY

CORPORATE RELATIONS DEVELOPED

- Idaho Technology Council (ITC)
- Idaho National Lab (INL)
- Micron Technology, Boise, ID
- Hewlett Packard, Inc. Boise, ID
- Plexus, Nampa, ID
- Leavitt Engineers, Nampa, ID
- Inergy, Pocatello, ID
- SimplyLEDS, Boise, ID
- Simplot, Boise ID
- Idaho Power, Boise, ID
- Motive Power, Boise, ID
- Intermountain 3D, Boise, ID
- ON Semiconductor, Nampa, ID
- American Semiconductor, Inc., Boise, ID
- BSpace, Boise, ID
- DC Engineering, Meridian, ID
- Anderson Wood, Meridian, ID
- HDL Engineering, Anchorage, AK
- Intel, Hillsboro, OR
- Tektronix, Beaverton, OR
- NASA, Washington DC
- Near Space Launch, Upland, IN
- Made In Space, Mountain View, CA
- Space Dynamics Lab, Logan, UT
- Boeing, Seattle, WA
- Lockheed Martin
- IBM, Burlington, VT, Fishkill, NY and Yorktown, NY
- Oak Ridge National Lab, Oak Ridge, TN
- ADTRAN, Huntsville, AL
- Dynetics, Huntsville, AL
- DENSO Corporation, Maryville, TN
- Proctor & Gamble, Jackson, TN
- Research Electronics, Inc., Algood, TN
- Schneider Electric/Square-D, LaVergne, TN
- TVA, Chattanooga, TN

FOUNDATION RELATIONS DEVELOPED

- Micron Foundation
- Hewlett Packard, Inc.

- Murdock Trust
- Morrison Foundation
- Keck Foundation

GRANTS AWARDED

NNU Program/Institutional Grants & Fundraising

- Engineering Excellence Scholarship Program created and first four years of awards
20 scholarships were awarded over 2014-17 totaling \$150,000 of Current Funds raised (with lots of credit to Darrell Marks and Bryon Knight)
Plus approx. \$125,000 of endowed funds raised toward a \$2 million goal, starting with the Engineering Industry/Alumni Advisory Board (IAAB) and others
- 2016-17 NNU 3D Printer Equipment Expansion, \$20,000 from Anderson Wood-Fred Oliver and \$20,000 from Morrison Foundation (worked with Dick VanSchyndel and Bryon Knight)
Used to buy six new 3-D printers and 2-D laser mills for student classroom and project use.
- 2013-14 NNU Mechanical Engineering Heat, Fluids, Materials Teaching Lab Equipment, Murdock Trust (worked closely with director Dr. Moses Lee), \$106,000 + NNU Match
- 2013 NNU Embedded Systems Lab Equipment, Tektronix, \$20,000
- 2012-14 NNU Engineering Faculty Hiring Start-up Grant, Micron Foundation, (worked closely with director Dee Mooney, VP Dean Klein, and met with CEO Mark Durcan and Joel Pearsall) \$200,000
- 2012-13 NNU 3-D Design Lab Equipment Grant, Hewlett-Packard, (worked closely with VP Jim Nottingham) \$250,000

NNU Research Grants

- S. Parke, “2020 RockSat-X Payload Launch: NNU & University of Hawaii” NASA ISGC Undergraduate Research Grant, 2019-20 \$25,000 matched plus \$60,000 of funding to Univ. of Hawaii - KCC
- M.D. Lawrence, S. Parke, J.D. Griffin, “RFTSat: Backscatter Radio Communication Between CubeSat and Remote Wireless Sensors,” NASA USIP 2016-17. \$231,886
- S. Parke and J. D. Griffin, “MakerSat: Completing Idaho’s First CubeSat for a 2017 Launch,” NASA ISGC Undergraduate Research Grant, 2016-17. \$25,000 matched
- S. Parke and J. D. Griffin, “MakerSat: Idaho’s ISS-based CubeSat Research Platform,” NASA ISGC Undergraduate Research Grant, 2015-16. \$24,800 matched
- S. Parke, “MakerSat: an ISS-based Open-Source CubeSat Research Platform,” NASA ISGC Undergraduate Research Grant, 2014-15. \$20,000 matched
- S. Parke, “3-D Printed CubeSats fabricated in Zero-G and launched from the International Space Station,” NASA ISGC 2014 Special Project: \$5000 matched
- M.D. Lawrence, S. Parke, “2016 RockSat-X: Flexible Electronic RFID Tag on a Boom – A Prelude to RFTSat,” NASA ISGC Grant FPK800-SB-009. \$7500
- M.D. Lawrence, S. Parke, “2015 RockSat-X: Flexible/Printable Spacecraft – A Prelude to a New Type of CubeSAT,” NASA ISGC Grant FPK800-SB-046, 2015. \$20,000.
- M.D. Lawrence, S. Parke, “2014 RockSat-X: Flexible/Printable Spacecraft and Airfoil Structures,” NASA ISGC Grant FPK800-SB-048, 2014. \$20,000.
- M.D. Lawrence, S. Parke, “2013 RockSat-X: Mechanical testing of Flexible ICs/PCBs in Open Space,” NASA ISGC Grant FPK800-SB
- M.D. Lawrence, S. Parke, “2012 RockSat-C: Feasibility of Using Superhydrophobic Surfaces and Testing Radiation Hardened Chips During Rocket Launches” NASA ISGC Grant FPK800-SB-023, 2012. \$10,000 matched
- M.D. Lawrence, S. Parke, “2012 Microgravity U: Phase Separation Methods in Micro-Gravity Using Superhydrophobic and Hydrophilic Surfaces,” NASA ISGC Grant FPK800-SB-024, 2012. \$5000 and -031 \$20,000
- D. Bulanon, S. Parke, “Earth Observation Using a Low-Cost Remote Sensing UAV Platform,” NASA ISGC, 2012, \$25,000 matched

TTU Program/Institutional Grants & Fundraising

- Development of Renewable Energy Lab at TTU, DENSO North American Foundation, \$200,000 in 2010

- Development of Senior Capstone Design Lab at TTU, DENSO North American Foundation, \$100,000 in 2007-8
- Stonecipher Endowed Professorship of Computer Engineering at TTU, Stonecipher Trust and Oak Ridge National Laboratory collaboration creating joint faculty appointment. \$200,000 per year beginning in 2010
- TVA Power Relay Lab at TTU, Tennessee Valley Authority & Schneider Electric & Schweitzer Electric Labs, \$100,000 in 2007.

American Semiconductor, Inc. Research Grants

- “Independent Double Gate CMOS Device Modeling Grad Student Support”
American Semiconductor, \$25,000 in 2005-06
- “Rad-Hard Flexfet CMOS Prototyping”
Air Force Research Lab, Kirtland AFB, BAA, \$70,000 in 2003-04
Co-P.I.: Douglas Hackler, ASI
- “Foundry Flexfet SOI, a Commercial Revolution in Rad-Hard Processing”
Missile Defense Agency, SBIR Phase I, \$70,000 in 2002-03
Co-P.I.: Douglas Hackler, ASI
- “Rad-hard Reconfigurable Bi-directional Level Shifters technology for Micro-and Nanosatellites”
NASA GSFC, SBIR Phase I & II, \$200,000 in 2005-07
Co-P.I.: Kelly DeGregorio, ASI
- “Advanced Commercially Available Inherently Radhard Primitive Cell Designs”
Air Force Research Lab, Kirtland AFB, SBIR Phase I & II, \$200,000 in 2005-07
Co-P.I.: Kelly DeGregorio

Boise State University Research Grants

- “Low-Power, SOI, RF-CMOS Technology for Wireless Systems”
Wireless Systems, Inc., \$1,500,000 in 2000-01 with Dr. Gary Erickson
- “Development of a Low-Power, RF Integrated Circuit R & D Infrastructure in Idaho for the Rapid Commercialization of Wireless Personal Communication Consumer Products”
National Science Foundation EPSCoR, \$497,720 in 1999-2002

Boise State University Program/Institutional Grants & Fundraising

- Start-up of BSU Electrical Engineering PhD Program, Micron Foundation \$5million 2004-06 (working with Jake Baker and Dean Lynn Russell)
- Micron Foundation BSU Engineering Building Community Challenge Grant (\$6million from Micron matched by \$6million from others) 1996-2000
(supporting Dean Lynn Russell, working with Steve Appleton)
- Hewlett Packard Engineering Building Equipment Grant \$2 million in 2000
(working with Gary Erickson, Lynn Russell, and HP’s Bob Deely)

COURSES TAUGHT

- Cornerstone
- Intro to Engineering
- Engineering Ethics & Economics
- Senior Capstone Design
- Circuits & Lab
- Electronics & Lab
- Digital Systems & Lab
- Computer Architecture
- Vibrations
- Measurements & Instrumentation Lab
- Engineering Materials
- Digital Integrated Circuit Design
- Analog & Mixed Signal IC Design

- Semiconductor Devices & Characterization Lab
- Advanced CMOS Device Design & Simulation
- Semiconductor Fabrication & Lab
- RFIC Design

PROFESSIONAL CONFERENCES & WORKSHOPS

- Christian Engineering Educators Conference, 2011, 2013, 2015, 2017
- Murdock College Science Research Conference, every Nov. throughout the Northwest
- ABET Accreditation Workshops, June 2010, 2012, 2013, 2017
- ABET Program Evaluator Training, May 2011, Baltimore, MD
- IEEE Global Humanitarian Technology Conference, Oct. 2015, Seattle, WA
- IEEE Workshop on Microelectronic Devices, 2001-2017, every April in Boise, ID
- IEEE International Electron Devices Meetings, every December in Washington, DC / San Francisco, CA
- University/Government/Industry/Micro/Nano Symposium, July 2012
- National Electrical & Computer Engineering Dept. Heads Workshop (ECEDHA), March 2007

U.S. PATENTS AWARDED

1. Provisional 2016 NNU: 3D Printed CubeSat For In-Space Assembly
2. 8,072,006 2011 ASI: Double-Gated Sensor Cell
3. 7,898,009 2011 ASI: Independently-Double-Gated Transistor Memory (IDGM)
4. 7,652,330 2010 ASI: Independently-Double-Gated Combinational Logic
5. 7,518,189 2009 ASI: Independently-Double-Gated Field Effect Transistor
6. 7,154,135 2006 ASI: Double-Gated Transistor Circuit II
7. 7,019,342 2006 ASI: Double-Gated Transistor Circuit I
8. 7,015,547 2006 ASI: Multi-Configurable Independently Multi-Gated MOSFET
9. 6,919,647 2005 ASI: SRAM Cell
10. 6,580,137 2003 BSU: Damascene Double-Gated Transistors and Related Manufacturing Methods
11. 6,344,381 2002 IBM: Method for Forming Pillar CMOS
12. 6,255,699 2001 IBM: Pillar CMOS Structure II
13. 6,204,532 2001 IBM: Pillar Transistor Incorporating a Body Contact II
14. 6,100,123 2000 IBM: Pillar CMOS Structure I
15. 6,020,239 2000 IBM: Pillar Transistor Incorporating a Body Contact I
16. 5,889,410 1999 IBM: Floating Gate Interlevel Defect Monitor and Method
17. 5,559,368 1996 UCB: Dynamic Threshold MOSFET w Gate-to-Body Connect for Ultra-Low-Voltage

PUBLICATIONS AND CONFERENCE PRESENTATIONS

1. Cheng Qi, Quentin Frederick, Kaleb Davis, Dakota Lindsay, Julie Cox, Stephen Parke, Joshua D. Griffin, Gregory D. Durgin, "Update on the RFTsat Mission Launch – (Sort of) The World’s First Space Solar Power Satellite," a keynote presentation at the Space Solar Power workshop at the 2019 IEEE International Conference on Wireless in Space and Extreme Environments (WiSee), Oct 16, 2019, the presenter was Dr. Greg Durgin.
2. Cheng Qi, Robert W. Corless, Joshua D. Griffin, Gregory D. Durgin, "Low-power and Compact Frequency Hopping RFID Reader at 5.8 GHz for Sensing Applications in Space," in IEEE Journal of Radio Frequency Identification, vol. 3, no. 3, pp. 133-142, Sept. 2019.
3. B. Campbell, D. Duryea, C. Nogales, K. Davis, D. Lindsay, J. Cox, Q. Frederick, Dr. S. Parke, Dr. J. Griffin, Dr. D. Lawrence, "Orbital Space Science Projects at NNU," a poster presentation at the 2019 Idaho Conference on Undergraduate Research, Boise, ID, 2019.
4. Cheng Qi, Quentin Frederick, Kaleb Davis, Dakota Lindsay, Julie Cox, Stephen Parke, Joshua D. Griffin, and Greg Durgin, "5.8 GHz Energy Harvesting Tag for Sensing Applications in Space," 2018 6th IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE), Huntsville, AL, Dec 11-13, 2018.
5. Cheng Qi, Joshua D. Griffin, and Gregory D. Durgin, "Low-power and Compact Microwave RFID Reader for Sensing Applications in Space," 2018 IEEE RFID-TA Conference, Macau SAR, China, September 26-28, 2018.

6. Lucas Schamber, Curtis Garner, Cassie Wade, Daniel Slemmer, Jordan Poundstone, Brandon Pankey, Dan Lawrence, Stephen Parke, and Joshua Griffin, Cheng Qi, Mohammad Alhassoun, and Michael Varner, "Distributed Sensing for Space Applications Using Modulated Backscatter," a poster presentation at the IEEE International Conference on RFID, Phoenix, AZ, May 9-11, 2017.
7. Cassie Wade, Daniel Slemmer, Curtis Garner, Lucas Schamber, Jordan Poundstone, Brandon Pankey, Joshua Griffin, Stephen Parke, Dan Lawrence, "RFTSat: Demonstrating Passive RF Sensor Tags Using Backscatter Data Communication", 14th Annual CubeSat Developers Workshop, 2017, April 26-28, 2017.
8. Cassie Wade, Curtis Garner, Jordan Poundstone, Lucas Schamber, Daniel Slemmer, Joshua Griffin, Steve Parke, Dan Lawrence, "RFTSat: Backscatter Radio for In-Orbit Distributed Sensing," a poster presentation at the 2016 Idaho Conference on Undergraduate Research, Boise, ID, 2016.
9. Ben Campbell, Connor Nogales, Braden Grim, Mitch Kamstra, Dr. Joshua Griffin, and Dr. Stephen Parke "On-Orbit Polymer Degradation Results from MakerSat-1: First Satellite Designed to be Additively Manufactured in Space," in Proceedings of the AIAA/USU Conference on Small Satellites, 2020.
10. Connor Nogales, Braden Grim, Mitch Kamstra, Benjamin Campbell, Aaron Ewing, Robert Hance, Dr. Joshua Griffin, Dr. Stephen Parke "MakerSat-0: 3D-Printed Polymer Degradation First Data from Orbit" in Proceedings of the AIAA/USU Conference on Small Satellites, 2018.
11. Braden Grim, Mitch Kamstra, Aaron Ewing, Connor Nogales, Joshua Griffin, Stephen Parke, "MakerSat: A CubeSat Designed for In-Space Assembly," in Proceedings of the AIAA/USU Conference on Small Satellites, 2016.
12. Stephen Parke, Joshua Griffin, Keith Moilanen, Braden Grim and Mitch Kamstra, "MakerSat: a DIY CubeSat 3D Printed on the ISS Open-Source Space Research Platform," In collaboration with Made In Space, Inc. Mountain View, CA, 2015 IEEE WMED, April 2015, Boise, ID
13. S. Parke, K. Cambell (BSU), C. Mouli (Micron), Chapter 13: "A 50 year history of Semiconductor Memory Technology for "Guide to State-of-the-Art Electron Devices," book Wiley, Jan 2013. Won Best Science Prose.
14. P. Salvador, M. Ostyn, S. Parke, "Flexible Photovoltaics," 2012 IEEE Workshop on Microelectronic Devices, April 2012, Boise ID.
15. M. Whiting, L. Hetrick, A. Peterson, S. Parke, "Building Lego Churches in Peru," 2011 Murdock Conference, Seattle, WA.
16. C. Larson, W. Patrick, G. Turner, J. Baggenstos, J. Hush, K. Halle, G. Pace, D. Lawrence, S. Parke, "Superhydrophobic Materials in Microgravity," 41st International Conference on Environmental Systems, July 2011, Portland, OR.
17. V. Vasireddy and S. Parke, "Simulation and Experimental Results of a 0.15um Independent Double Gated CMOS Transistor," IEEE University/Government/Industry Micro/Nano Symposium, Purdue University, July 2010. pp.1-3.
18. P. Luttrell, M. Drummonds, M. Ervin, J. Sluder, E. Weeks, C. Wilson, S. Mahajan, J. Biernacki, and S. Parke, "MEMS Design Course Solutions to the Tennessee Trash Problem," IEEE University/Government/Industry Micro/Nano Symposium, Louisville, Kentucky, July 2008, pp. 200-202.
19. K. Modzelewski, R. Chintala, H. Moolamalla, D. Hackler, and S. Parke, "Design of a 32nm Independently-Double Gated FlexFET SOI Transistor," IEEE University/Government/Industry Micro/Nano Symposium, Louisville, Kentucky, July 2008, pp. 64-67.
20. R. Chintala, S. Vootkuri, and S. Parke, "Design Optimization of a 35nm Independently-Double-Gated FlexFET SOI Transistor," IEEE SOI Conference, Palm Springs, CA October 2007, pp. 67-68.
21. D. Wilson, R. Hayhurst, A. Oblea, S. Parke, and D. Hackler, "Flexfet: Independently-Double-Gated SOI Transistor With Variable Vt and 0.5V Operation Achieving Near Ideal Subthreshold Slope," IEEE SOI Conference, Palm Springs, CA October 2007, pp. 147-148.
22. S. Parke, "Impact of Flexible-Threshold IDG Nanoscale CMOS Devices on Ultra-Low-Power Circuit Designs," IEEE International Electron Device and Materials Colloquium, Feb. 2006.
23. KJ Hass, GW Donohoe, YK Hong, BC Choi, S. Parke and K. DeGregorio, "Magnetic Shadow RAM", IEEE VLSI Circuits Symposium, January 2006.
24. M. Elgin, D. Russell, M. Katula, R. Paulsen, S. Parke, "CMOS Imager pixel design for space applications," 2006 IEEE WMED, pp. 61.
25. S. Parke, K. DeGregorio, D. Hackler, D. Wilson, "Ultra-low-power dynamic-threshold digital circuits in the FlexFET independently-double-gated SOI CMOS Technology," 2006 IEEE WMED, pp. 34.
26. K. DeGregorio, D. Wilson, S. Parke, J. Berg, M. Goldston, R. Hayhurst, D. Hackler, "Rad-Hard Reconfigurable Bidirectional Level Shifter (ReBiLS) for NASA Space Applications in the FlexFET 0.18um SOI CMOS Technology, 12th NASA Symposium on VLSI Design, Coeur d'Alene, ID, October 2005.

27. S. Parke, K. DeGregorio, D. Hackler, "Ultra-Low-Power, High-Performance, Dynamic-Threshold Digital Circuits in the FlexFET Independently-Double-Gated SOI CMOS Technology," *IEEE SOI Conference*, Honolulu, HI, October 2005, pp. 81-82.
28. S. Parke, M. Goldston, D. Hackler, K. DeGregorio, R. Hayhurst, A. Horvath, and S. Parsa, "FlexFET: A Low-Cost, Planar, Self-Aligned Independent-Double-Gate MOSFET with Flexible, Dynamic Threshold Control," *IEEE Workshop on Microelectronic Devices*, Boise, ID, April 2005., pp. 35-57.
29. G. VanAckern, S. Parke, "Double-gate SOI CMOS device DC & RF characterization," *IEEE Workshop on Microelectronic Devices*, Boise, ID, April 2005, pp. 79.
30. S. Parke, M. Goldston, D. Hackler, K. DeGregorio, R. Hayhurst, , "FlexFET: A Low-Cost, Rad-Hard, Independent-Double-Gate SOI CMOS Technology with Flexible, Dynamic Reconfigurability," *IEEE Aerospace Conference*, Big Sky, MT, March 2005, pp. 1-8.
31. S. Parke, M. Goldston, D. Hackler, K. DeGregorio, R. Hayhurst, A. Horvath, and S. Parsa, "Complementary Sidewall- Spacer-Diffused Ultrashallow SD Extension Process for Damascene Independently-Double-Gated SOI CMOS," *IEEE SOI Conference*, Charleston, S.C. October 2004, pp. 104-105.
32. S. Pemmeraju and S. Parke, "Elimination of Floating Body Effects in SOI CMOS Devices," *IEEE EDS Workshop on Microelectronics and Electron Devices*, Boise, ID, April 2004, pp. 126-128.
33. E. Kunz and S. Parke, "2.4GHz High Gain, Low Power Narrowband Low-Noise Amplifier in 0.18um TSMC CMOS," *IEEE EDS Workshop on Microelectronics and Electron Devices*, Boise, ID, April 2004, pp. 52-54.
34. J. Berrocal, H. Nguyen, H. Yong, and S. Parke, "Gold Liffoff Process for Fabricating Biosensors," *IEEE EDS Workshop on Microelectronics and Electron Devices*, Boise, ID, April 2004.
35. S. Parke, "Comparison of Existing & Proposed SOI MOSFET Device Structures for Minimizing Total Dose Radiation Damage," *IEEE Aerospace Conference*, Big Sky, MT, March 2004, pp. 2427-2430.
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