James D. Johansen, PhD

EDUCATION

Ph.D., Theology and Apologetics, with Biology and Systems Engineering, Liberty University, 2019
Machine Learning Graduate Courses (8 units), Sanford University, 2024
M.A. Christian Apologetics, Biola University, 2015
M.A. Science and Religion, Biola University, 2012
Graduate Certificate in Unix and C Programming, UCLA, 2006
M.S. Electrical Engineering, USC, 1985
B.S. Electrical Engineering, USC, 1982

WEBSITES

LinkedIn Industry Focused: www.linkedin.com/in/jim-johansen-b70b2580/
LinkedIn Academic Focused: www.linkedin.com/in/jim-james-d-johansen-22381281/
YouTube Channel: www.youtube.com/@JimJohansenPhD/playlists

ACADEMIC WORK EXPERIENCE

Azusa Pacific University
Assistant Professor
2019 – present
Adjunct professor in the College of Liberal Arts and Science, in the engineering and computer science program, teaching computer organization and architectures, software engineering, senior capstone project, data structures, systems engineering, discrete mathematics, and introduction to engineering. Started the APU CubeSat program.

Liberty University
Adjunct Professor
2021 - Present
Adjunct professor in the School of Engineering, within the Engineering and Computational Sciences department, teaching introduction to engineering, data analytics and machine learning, computer numerical control (CNC) and programming logic chips (PLC), technical communication, quality assurance, facilities design, and production systems.

Regent University
Adjunct Professor
2020 – Present
Adjunct professor in the School of Divinity teaching cosmogony and anthropology, apologetics and beginning of life, Christian ethics, Christian apologetics, and master's thesis supervision.

Biola University
Adjunct Professor
2020 – 2024
Adjunct professor in the School of Science, Technology, and Health within the Chemistry, Physics, and Engineering department, teaching introduction to physics, physics laboratory, and mechanics of materials courses.

The Master's University
Adjunct Professor
2019 – 2024
Adjunct professor in the School of Science, Math, Technology and Health, Biological, and Physical Science, teaching introduction to engineering, and physics courses.

University of Southern California
Research Assistant, Visiting Scientist
1979 – 1981
USC Material Sciences Department - Microprobe Computer Control. Worked with an Ion Microprobe device called a Qualitative Mass Analyzer of Solids (QMAS), developing semiconductor substrate analysis computer automation.
USC Physics Department - Researcher and Computer Programmer Participated in research and computer simulation for the Free Electron Laser (FEL) at Los Alamos National Laboratories (LANL) as a Visiting Scientist and at USC. Acknowledged in the resulting LANL technical report.

INDUSTRY WORK EXPERIENCE

The Aerospace Corporation
Director and Consultant
Feb 2008 – Present
Consultant (causal employee) on various study efforts, including counter uncrewed systems (CUXS), neuromorphic computing, and microelectronics planning.
Director for sponsor-funded work projects for various programs, strategic studies, and technology development efforts. Managed a geographically dispersed team of engineers. Directed studies and ran multi-year programs for NASA, NSF, DOE, DHS, DoD, and other organizations. Participated in business development efforts. Directed concept development for numerous projects. Managed teams of engineers for multiple efforts. Managed numerous technical studies funded by government sponsors. Developed modeling, simulation, and analysis results using various analytic tools.

The MITRE Corporation
Science and Technology Manager
Jun 1997 – Jan 2008
Managed science and technology development efforts for several government sponsor organizations. Directed a distributed team of engineers of various projects, studies, and assessments. Worked on projects with the Air Force, AFRL, NRL, DARPA, and other organizations. Managed a technology development group. Supported GPS, satellite

communication, and remote sensing technology and assessment efforts. Participated in concept studies, architecture, and analysis for a new program. Developed space technology concept development efforts with ARFL, DARPA and other government organizations. Wrote Java, MATLAB, C, and visualization analyses and prototype tool development.

Lockheed Martin
Deputy System Engineering Department Manager
Nov 1995 – Jun 1997
Directed a department of engineers as the Deputy System Engineering Department Manager. Managed budgets, staffing and tasks. Performed recruiting, interviewing and job fairs to provide manning for recently awarded contracts. Acted as a deputy subcontract manager of a subcontract. Tasked as a senior systems engineer for three subsystems on a large ground station program.

The Boeing Corporation
Senior Project Engineer
Jun 1981 – Nov 1995
Tasked as a project system engineer on multiple satellites, ground systems, and other complex development programs. Worked in a program office, interfacing with unit designers and interfaced with customers. Tasked as a system engineer for several programs. Developed reports, performance handbooks, analyses, technical briefings, performance trends, and data reviews. Analyzed development results and made recommendations to customers based on the results.

PROFESSIONAL MEMBERSHIPS

Institute of Electrical and Electronic Engineers (IEEE) – Member
International Council on Systems Engineering (INCOSE) – Member
Evangelical Theological Society (ETS) – member
Creation Research Society (CRS) – Member

AWARDS, HONORS, FELLOWSHIPS, AND GRANTS

NASA Headquarters Award – GPS Use in Space
Institute on Navigation (ION) Distinguished Service Award
Numerous Customer Accommodation Letters
Three Individual Performance Recognition Awards from the Aerospace Corporation
Individual Spot Performance Awards from the Aerospace Corporation
Individual Spot Performance Award from the MITRE Corporation
Customer Recognition Awards
Lockheed Martin NOVA Award
NSF, NASA, DHS, DARPA, and Other Organizations – Numerous examples of getting direct government funding
Boeing Master’s Fellowship for my master’s degree in electrical engineering

SERVICE ACTIVITIES

Church and Ministry Leader - Extensive experience leading small groups and church organizations. Well-versed bible study leader. Good organizer of ministries. Skilled at facilitating good small-group interactions. With my widespread and diverse background experience, I regularly offer these resources in service to church and ministry organizations.

PUBLICATIONS

Johansen, James D. (2024), "Bacterial chemotaxis control process analysis with SysML," Systems Engineering, 2023. DOI: https://doi.org/10.1002/sys.21752.

Johansen, James D. (2023) "Human Brain Function Above All Other and the Creation Model," *Proceedings of the International Conference on Creationism:* Vol. 9, Article 10. DOI: 10.15385/jpicc.2023.9.1.18. Available at: https://digitalcommons.cedarville.edu/icc_proceedings/vol9/iss1/10.

Johansen, James D. (2020), "Hermeneutic Applications from the Patristic Exegetes," SHERM 2/2 (2020), 112-41, https://doi.org/10.33929/sherm.2020.vol2.no2.07

Johansen, James D. (2019), "Tracing God's Hand in Redemption: Exploring Evidence of the Imago Dei in Human Molecular Biology," Liberty University Doctoral Dissertations and Projects. 2189. https://digitalcommons.liberty.edu/doctoral/2189.

Johansen, James. "Applied Theology: Exploring the Utility of Theological Method in Scientific Research with Genomic Research as an Example." Bartlett, Jonathan. Naturalism and Its Alternatives in Scientific Methodologies: Proceedings of the 2016 Conference on Alternatives to Methodological Naturalism. Broken Arrow, OK: Blyth Institute Press, 2016.

Venturini, Catherine; Abramowitz, Lyle; Johansen, James; Gee, James; Floyd, William (2009), "CubeSat Developmental Programs – Working with the Community," American Institute of Aeronautics and Astronautics. AIAA Conference Papers, 01/2009.

Conference Presentations

"The Holt Spirit Cares About Our Bodies," Holy Spirit Symposium, Biola University, 2024. https://www.biola.edu/holy-spirit-academic-symposium#speakers.

"Bacterial Chemotaxis Control Illustrates an Engineering Framework in the Creation Model," *Proceedings of the International Conference on Creationism*: Vol. 9, Article 49. DOI: 10.15385/jpicc.2023.9.1.48.

"Holy Spirit's Refreshing Our Bodies via Biological Redemption and the Creation Model," *Proceedings of the International Conference on Creationism*: Vol. 9, Article 53. DOI: 10.15385/jpicc.2023.9.1.39.

"Bacterial Chemotaxis Control Architectural Model and Assessment," Discovery Institute's Conference on Engineering in Living Systems (CELS) 2023.

"Neuron Functional Modeling and Brain Computing Characterization," Discovery Institute's Conference on Engineering in Living Systems (CELS) 2023.

"Azusa Pacific University CubeSat Program," INCOSE SySteam Conference, 2023. https://www.incose.org/docs/default-source/systeam-initiative/key-files/2023_systeam_miniconference_attendee_info_packet.pdf?sfvrsn=644947c7_10.

"A Systems Engineering Model for Molecular Biological Functions in Substance Metabolism," Discovery Institute's Conference on Engineering in Living Systems (CELS) 2021.

"An Example Molecular Biological Process That Shows Mechanisms for Recovery and Optimality," Discovery Institutes' Conference on Engineering in Living Systems (CELS) 2021.

"Model-Based Systems Engineering and Critical Function Security: Assessing CubeSats as an Exemplar Mission," Ground System Architecture Workshop (GSAW) 2021, https://gsaw.org/wp-content/uploads/2021/02/2021-P-002-Johansen.pdf.

"High Reliability Electronics Virtual (HiREV) Technology Forecast," Microelectronics Reliability and Qualification Workshop (MRQW), 2020, summarized in this article, https://aerospace.org/sites/default/files/2020-03/Getting%20It%20Right%2003.2020.pdf

"A Glimpse of Divine Biological Design Intentionality by Considering Standard Codon Table Optimization in Protein Coding and QAM Modulation Similarities," American Scientific Affiliation (ASA) Regional 2020, Science, Education, & Christian Practice of Creation Care, February 2020, Azusa Pacific University.

"Man's *Imago Dei* Mission Being Supported by Molecular Biology: An Illustration of How This Informs Us About Redemption and Creation Care," ASA Regional 2020, Science, Education, & Christian Practice of Creation Care.

"Imago Dei in the Face of Addiction," Evangelical Theological Society (ETS) Annual Meeting 2019.

"An Example of Man's *Imago Dei* Mission Being Supported by Molecular Biology: The Importance of Understanding the Image of God in Biology," Creation Biology Society (CBS) Annual Meeting 2019.

"Insights from Sample Human Genome GWAS and Epigenome EWAS Projects," ASA Annual Meeting 2018.

"Examining the Precursors and Outcomes of the Two Reformations: Theology and Science," ETS Annual Meeting 2017.

"Exploring the Application of Theological Method in Genomic," ASA Annual Meeting, Aug 2016.

"Exploring the Application of Theological Method in Genomic Research," Blythe Institute Alternatives to Methodological Naturalism Conference, Apr 2016.

"Exploring the Application of Theological Method in Genomic Research," ASA Annual Meeting, July 2015.

"Information in Genomes - Scientific, Theological, and Ontological Perspectives," ASA Annual Meeting – International Conference, July 2014.

"Information in Genomes - Scientific, Theological, and Ontological Perspectives," Liberty Graduate Seminar, Nov 2015.