CARLOS A. BAZAN

240 Prince Phillips Drive • St. John's, NL A1B 3X5, Canada
+1.709.864.8943
carlos.bazan@mun.com

WORK EXPERIENCE

ASSISTANT PROFESSOR & ENGINEERING CHAIR IN ENTREPRENEURSHIP
Memorial University of Newfoundland, St. John's NL (03-2017 – Present)
Cross-appointed to the Faculty of Engineering & Applied Science and Faculty of Business Administration. Affiliated with the Memorial Centre for Entrepreneurship. Primary area of research: Entrepreneurship and Innovation with special emphasis on Technology Transfer and Commercialization. Author of the Translational Research & Development Model and Methodology: "From Lab Bench to Store Shelves."

PROJECT MANAGER
Memorial University of Newfoundland, St. John's NL (10-2013 – 02-2017)
Atlantic Innovation Fund project: "Sensing System for Detection and Tracking of Oil in Marine Waters in Harsh Climates." Partners: Atlantic Canada Opportunities Agency, Research & Development Corporation of Newfoundland and Labrador, Petroleum Research Newfoundland and Labrador, Husky Energy, and Prosolia Inc.

ADJUNCT PROFESSOR & RESEARCH SCIENTIST
San Diego State University & Rees-Stealy Research Foundation Laboratory, San Diego CA (07-2008 – 09-2013)
Adjunct Professor of Computational Science: Lecturer and Coordinator of the Computational Science Research Center's Visualization Laboratory, the Professional Science Master's program, and the Applied Computational Science and Engineering Student Support program. Research Scientist: investigation and analysis of contractility in cardiac muscle cells.

LEAD CONSULTANT
Carlos Bazan LLC, San Diego CA (06-2004 – Present)
Business analytics consulting. Development of statistical analysis techniques for data-driven corporate decision making.

CHIEF FINANCIAL OFFICER & MEMBER OF THE BOARD OF DIRECTORS
Pangea Foundation, San Diego CA (10-2002 – 12-2006)
Not-for-profit technology company. Designed and implemented best financial and business practices as encountered in the for-profit business world for the not-for-profit organization.

MEMBER OF THE BOARD OF DIRECTORS
Texaco Paraguay DPSA, Asuncion Paraguay (03-1997 – 03-2001)
Multinational energy company. Consultant to the Finance Division. Led the merger between TEXACO Overseas Holding Inc. and SOLPAR DPSA.

LECTURER & RESEARCHER
Catholic University of Asuncion, Asuncion Paraguay (03-1993 – 08-2001)
Part-time Lecturer & Researcher and Member of the Faculty of Science and Technology Council. Taught graduate and under-graduate courses.

CO-FOUNDER, CHIEF FINANCIAL OFFICER & MEMBER OF THE BOARD OF DIRECTORS
Solpar DPSA/Grupo Beta SA, Asuncion Paraguay (09-1987 – 08-2001)
In charge of the finance division and responsible for strategic financial planning, raising funds for business, allocating financial resources, etc.

LEAD CONSULTANT
Carlos Bazan Consulting, Asuncion Paraguay (08-1987 – 08-2001)
Engineering and project management company. Provided design, consulting, construction, and management services to Solpar/TEXACO franchisees.

EDUCATION

DOCTOR OF PHILOSOPHY IN COMPUTATIONAL SCIENCE
San Diego State University & Claremont Graduate University, San Diego CA (2009)
Dissertation Title: "PDE-Based Image and Structure Enhancement for Electron Tomography of Mitochondria." National Institutes of Health Pre-Doctoral Fellow.

MASTER OF SCIENCE IN BUSINESS ADMINISTRATION, FINANCE
San Diego State University, San Diego CA (2003)
FULBRIGHT Scholar sponsored by LASPAU/Harvard University. BETA GAMMA SIGMA Graduate.

MASTER OF SCIENCE IN NUMERICAL METHODS
Polytechnic University of Catalonia, Barcelona Spain (1991)
Merit of "Distinguished." Institute for Ibero-American Cooperation Scholar, Government of Spain.

MASTER OF BUSINESS ADMINISTRATION
Catholic University of Asuncion & INCAE Business School, Asuncion Paraguay (1989)

BACHELOR OF SCIENCE IN CIVIL ENGINEERING
Catholic University of Asuncion, Asuncion Paraguay (1987)
Thesis Tittle: "Design of Sewer Systems and Wastewater Treatment Plants for Small Communities." Merit of "Outstanding." Graduated 1st in a class of 73.

CURRENT RESEARCH

TECHNOLOGY TRANSFER PROJECTS

- Applied Research in Dynamic Risk Analytics Using Machine Learning (2021 – 2022)
- A Novel Consumer's Behavior Analysis Platform to Enhance Customer Engagement (2021 – 2022)
- MIP-Based Sensing Technology for Emerging Water Contaminants (2020 – 2022)
- Translational R&D of a Water Treatment Technology for Emerging Contaminants of Concern (2020 – 2024)
- Dysbiosis Correction by NBI Gut Check Report—Balance the Healthy Bacteria (2020 – 2021)
- Reducing Waste in Seafood Supply Chains to Increase Sustainability (2020 – 2021)
- Simplifying the Chemistry of Cosmetics for Public Use (2020 – 2021)
- Employers' Expectations of Technological Proficiency Levels of University Business Graduates (2019 – 2020)
- Nanoclay-Based Antimicrobial Coatings and Additives (2018 – 2020)
- Generation of a Business Model to Help Address Food and Nutrition Security in the Baie Verte Peninsula (2018 – 2019)
- Development of Improved Asphalt Mixture for the City of St. John's: A Memorial University – City of St. John's Joint Study (2019 – 2022)
- MIP-Based Technology for Water Quality Monitoring (2017 – 2019)

ENTREPRENEURIAL ECOSYSTEM PROJECTS

- Identifying the Factors of Successful University Innovation and Entrepreneurship Ecosystems (2020 – 2021)
- Evolution of the Effect of the University's Environment & Support System in Shaping Entrepreneurial Intention of Students: A Bayesian Approach (2020 – 2021)
- Analyzing the Effect of Entrepreneurship Education (2021 – 2022)
- Effect of Gender Role Identity in the Entrepreneurial Intention of Students (2019 – 2020)
- Effect of the University's Environment & Support System in the Entrepreneurial Intention of Female Students (2019 – 2020)

- Effect of the University on the Social Entrepreneurial Intention of Male and Female Students (2018 – 2019)
- The Impact of Business Intelligence through Knowledge Management (2018 – 2019)
- Effect of the Entrepreneurial Orientation of the University on the Entrepreneurial Propensity of Academics (2019 – 2021)
- A Methodology for Assessing the Effect of the University's Entrepreneurial Orientation on the Academic's Entrepreneurial Propensity (2018 – 2020)
- Effect of the University's Environment & Support System in Shaping Entrepreneurial Intention of Students (2017 – 2018)
- A Student's Guide to Memorial University's Start-up Ecosystem and Beyond—With Real Life Examples on How to Navigate It (2018 – 2020)
- Translational R&D Model and Methodology: "From Lab Bench to Store Shelves" (2017 – 2018)
- Intellectual Property Management Methodology (Research Project Level) (2017)

PRIOR RESEARCH

- Image Processing Techniques for the Assessment of Contractile Responses in Cardiac Myocytes
  Postdoctoral research with Prof. Paul Paolini, Rees-Stealy Research Foundation Laboratory, San Diego CA (07-2008 – 09-2013).
- PDE-Based Image and Structure Enhancement for Electron Tomography of Mitochondria
  Doctoral research with Prof. Peter Blomgren, San Diego State University, San Diego CA (09-2003 – 05-2009)

FUNDING

- **Project:** *Applied Research in Dynamic Risk Analytics Using Machine Learning*
  Principal Investigator: C. Bazan
  Source: Mitacs and SRCube Technologies Inc.
  Amount and Duration: $90,000 over 2 years (January 2021 – December 2022)
- **Project:** *A Novel Consumer's Behavior Analysis Platform to Enhance Customer Engagement*
  Principal Investigator: C. Bazan
  Source: Mitacs and HYKE Technologies Inc.
  Amount and Duration: $90,000 over 2 years (January 2021 – December 2022)
- **Project:** *Identifying the Factors of Successful University Innovation and Entrepreneurship Ecosystems*
  Principal Investigator: C. Bazan
  Source: Mitacs and Memorial University
  Amount and Duration: $12,216 over 1 year (July 2020 – June 2021)
- **Project:** *Reducing Waste in Seafood Supply Chains to Increase Sustainability*
  Principal Investigator: C. Bazan
  Source: Mitacs and Sedna Technologies Inc.
  Amount and Duration: $60,000 over 1.5 years (September 2020 – December 2021)
- **Project:** *Simplifying the Chemistry of Cosmetics for Public Use*
  Principal Investigator: C. Bazan
  Source: Mitacs and Adorify Analytics Inc.
  Amount and Duration: $110,000 over 2 years (September 2019 – August 2021)
- **Project:** *Employers' Expectations of Technological Proficiency Levels of University Business Graduates*
  Principal Investigator: C. Bazan
  Source: Mitacs and Business Studs Inc.
  Amount and Duration: $60,000 over 1 year (September 2019 – August 2020)

- **Project:** *NSERC CREATE training program in Persistent and Emerging Organic PoLlution management in cold marine and coastal Environments (PEOPLE CREATE)*
  Principal Investigator: B. Chen (C. Bazan is Co-Lead of Knowledge & Skills 8: Community Engagement, Technology Transfer and Entrepreneurship).
  Source: NSERC and Memorial University
  Amount and Duration: $1.65 million over 6 years (April 2019 – March 2025).
- **Project:** *Generation of a Business Model to Help Address Food and Nutrition Security in the Baie Verte Peninsula*
  Principal Investigator: C. Bazan
  Source: The Harris Centre
  Amount and Duration: $15,000 over 1 year (September 2018 – August 2019)
- **Project:** *Development of Improved Asphalt Mixture for the City of St. John's: A Memorial University–City of St. John's Joint Study*
  Principal Investigators: K. Hossein, C. Bazan
  Source: City of St. John's, Mitacs, and Memorial University
  Amount and Duration: $90,500 over 3 years (July 2019 – June 2022)
- **Project:** *Nanoclay-Based Antimicrobial Coatings and Additives*
  Principal Investigators: R. Mani, B. Gorityala, C. Bazan, V. Chintamaneni
  Source: National Research Council, InnovateNL, Mitacs, and Polyamyna Nanotech Inc.
  Amount and Duration: $551,750 over 2 years (April 2018 – March 2020)
- **Project:** *MIP-Based Technology for Water Quality Monitoring*
  Principal Investigators: C. Bottaro, K. Hawboldt, C. Bazan
  Source: ACOA, Innovate NL, 908 Devices Inc., and Memorial University
  Amount and Duration: $1.59 million over 2.25 years (April 2017 – June 2019)
- **Project:** *Technology Innovation and Commercialization (Start-Up Fund)*
  Principal Investigator: C. Bazan
  Source: ACOA and Newfoundland and Labrador TCII
  Amount and Duration: $90,000 over 1.5 years (March 2017 – October 2018)

SUPERVISION, COACHING & ADVISING

TRAINEE SUPERVISION

- Hussain Choudhry (2020) (Supervisor, Undergraduate Student)
- Arash Samizadeh Mashhadi (2020 – 2022) (Co-Supervisor, MEng Student)
- Abdulhamid Mohamed (2021 – 2025) (Supervisor, PhD Student)
- Towhidul Islam (2020 – 2022) (Co-Supervisor, MEng Student)
- Farhan Asif (2020) (Supervisor, MEng Student)
- Tajrian Rushat (2020 – 2021) (Supervisor, Undergraduate Student)
- Osarenoma Aifuwa (2020) (Supervisor, Undergraduate Student)
- Royan Neisan (2020 – 2024) (Supervisor, PhD Student)
- Fereshteh Shahhoseini (2020 – 2021) (Co-Supervisor, PhD Student)
- Evan Langille (2020 – 2021) (Co-Supervisor, PhD Student)
- Sheikh Fazle Rabbi (2020 – 2022) (Supervisor, Postdoctoral Fellow)
- Nikitha Kendyala (2020 – 2021) (Supervisor, Postdoctoral Fellow)
- Purvikalyan Pallegar (2020 – 2021) (Supervisor, Postdoctoral Fellow)
- Sheamus MacDonald (2020 – 2021) (Supervisor, MSc Student)
- Sepideh Mehrani (2020 – 2022) (Supervisor, Postdoctoral Fellow)
- Loujein Mouammer (2019 – 2020) (Supervisor, MEng Student)
- Muhammad Khurram (2019 – 2021) (Supervisor, MSc Student)
- Aparajita Datta (2019 – 2020) (Co-Supervisor, MSc Student)
- Yousuf Radeef (2019, 2021) (Supervisor, Undergraduate Student)
- Jada Jones (2019) (Supervisor, Undergraduate Student)
- Nafisa Balel (2019) (Supervisor, Undergraduate Student)

- Katie Gillespie (2018 – 2019) (Supervisor, Undergraduate Student)
- Rowan Meany (2018) (Supervisor, Undergraduate Student)
- Leanne Clarke (2018) (Supervisor, Undergraduate Student)
- Bennett Newhook (2018 – 2019) (Supervisor, Undergraduate Student)
- Chantel Finn (2018) (Supervisor, Undergraduate Student)
- James Rayner (2018) (Supervisor, Undergraduate Student)
- Simon Yap (2018) (Supervisor, Undergraduate Student)
- Ali Amjad (2018) (Supervisor, Undergraduate Student)
- Shahbaz Khan (2018 – 2020) (Co-supervisor, MEng Student)
- Rakibul Alam (2018 – 2020) (Co-supervisor, MEng Student)
- Sean Frederick (2017) (Supervisor, Undergraduate Student)
- Andrew Way (2017 – 2019) (Supervisor, MSc Student)
- Arifusalam Shaikh (2017 – 2019) (Supervisor, Postdoctoral Fellow)
- Jalil Shahbahr (2017 – 2018) (Co-supervisor, Postdoctoral Fellow)
- Hossein Beheshti Fakher (2017) (Supervisor, Postdoctoral Fellow)

START-UP COMPANY COACHING

- HYKE Technologies Inc.
- SRCube Technologies Inc.
- ExTech MIP Inc.
- Duxion Motors Inc.
- Sedna Technologies Inc.
- Adorify Analytics Inc.
- Business Studs Inc.
- Nucliq Biologics Inc.
- ImpackHUB Inc.
- Polyamyna Nanotech Inc.
- CREATROS Inc.
- Intelligent Materials & Methods Inc.
- Spectroleum Labs Inc.
- Genesis Centre's Evolution Program: On-going mentoring to program co-hort.

TEACHING EXPERIENCE

- 2020 – Present: Professor for the course **Engineering Economics**, *Memorial University*, St John's NL
- 2018 – Present: Professor for the course **New Venture Creation**, *Memorial University*, St John's NL
- 2018 – Present: Professor for the course **Introduction to Entrepreneurship**, *Memorial University,* St John's NL
- 2017: Professor for the course **Entrepreneurship for Non-Business Students**, *Memorial University,* St John's NL
- 2012 – 2013: Lecturer for the course **Organizational Development**, *San Diego State University,* San Diego CA
- 2011 – 2013: Lecturer for the course **Mathematical Modeling**, *San Diego State University,* San Diego CA
- 2011 – 2013: Lecturer for the course **Computational Science Fundamentals**, *San Diego State University,* San Diego CA
- 2011 – 2013: Lecturer for the course **Engineering Economics**, *San Diego State University,* San Diego CA
- 2010 – 2013: Graduate Advisor, *San Diego State University*, San Diego CA
- 2007 – 2013: Lecturer for the course **Computational Imaging**, *San Diego State University,* San Diego CA
- 2004 – 2005: Lecturer for the course **Fundamentals of Finance**, *San Diego State University,* San Diego CA
- 2002 – 2004: Invited Lecturer for the course **Seminar in Investments**, *San Diego State University,* San Diego CA

- 1995 – 2001: Lecturer for the course **Finite Element Method for Structural Analysis**, *Catholic University,* Asuncion Paraguay
- 1993 – 2001: Lecturer for the course **Applied Mathematics**, *Catholic University,* Asuncion Paraguay
- 1993 – 2001: Lecturer/Advisor for the course **Final Project**, *Catholic University,* Asuncion Paraguay
- 1995: Lecturer for the course **Continuum Mechanics**, *Catholic University,* Asuncion Paraguay
- 1994 – 1995: Lecturer for the course **Computer Laboratory 1**, *Catholic University,* Asuncion Paraguay
- 1994 – 1995: Lecturer for the course **Strength of Materials 1**, *Catholic University,* Asuncion Paraguay
- 1994 – 1995: Lecturer for the course **Strength of Materials 2**, *Catholic University, Asuncion Paraguay*
- 1993: Invited Lecturer for the course **Finite Element Method**, *Catholic University,* Asuncion Paraguay
- 1984 – 1986: Teaching Assistant Lecturer for the courses **Statics I**, **Statics II**, and **Statics III**, *Catholic University,* Asuncion Paraguay

UNIVERSITY SERVICE

COMMITTEE MEMBER

- Memorial University Strategic Planning Facilitation Team (2020 – 2021)
- Review Committee for Reappointment of Director of First Year Engineering (2020)
- Review Committee for Reappointment of Director of Industrial Outreach (2020)
- Committee on Graduate Studies (Co-Chair) (2020 – 2021)
- Computer Applications Working Group, Faculty of Business Administration (2020)
- CDL-Atlantic at Memorial University Committee (2019 –)
- Committee for Head of Department Review, Department of Mechanical Engineering (2018)
- Faculty of Business Administration Council (FEAS Representative) (2018 –)
- Committee on Undergraduate Studies (2018 – 2019)
- University Senate Planning and Budget Committee (2018 – 2021)
- University Senate Course Evaluation Committee (2018 – 2021)
- Promotion and Tenure Committee, Department of Civil Engineering (2018)
- James R. Pearcey Award for Entrepreneurism (2018 –)
- FEAS and the EASAC Committee on Women in Engineering (2018 –)
- Eight-Month Work Term(s) Committee (2017)
- Faculty of Science Council (FEAS Representative) (2017 – 2018)
- Committee on Graduate Studies (2017 – 2019, 2020 – 2021)
- MUN Innovation Committee (Co-Chair) (2017 –)
- Ignition 2020—Igniting Innovation in Newfoundland and Labrador (2017 –)
- Research Project Management Division (2016 – 2018)

COMMITTEE CHAIR

- PhD Comprehensive Exam by Katlyn Mackay (May 8, 2020)
- PhD Comprehensive Exam by Sanaz Mosayebi (March 13, 2020)
- PhD Comprehensive Exam by Ali Abdel-Hafez (September 20, 2019)
- PhD Proposal by Jacopo Fragasso (July 31, 2019)
- PhD Proposal by Marjan Taghi Boroojerdi (February 26, 2019)
- PhD Proposal by Farhad Davaripour (December 20, 2018)
- PhD Comprehensive Exam by Quynh Pham (December 3, 2018)
- PhD Comprehensive Exam by Peter Ogban (August 7, 2018)
- PhD Proposal by Mohamed Albarghot (July 11, 2018)
- PhD Comprehensive Exam by Kewei Shi (March 2, 2018)

- PhD Comprehensive Exam by Rene Silva (December 20, 2017)
- PhD Comprehensive Exam by Fariba Mohammadimanesh (September 28, 2017)
- PhD Comprehensive Exam by Masoud Mahdianpari (September 25, 2017)
- PhD Comprehensive Exam by Faraj Ben Rajeb (July 27, 2017)
- PhD Comprehensive Exam by Farhad Davaripour (July 25, 2017)
- PhD Comprehensive Exam by Mohammad Abdelsadek (July 5, 2017)

EXAMINATION COMMITTEE

- Internal Examiner of PhD Thesis by Rahim Shoghi (2020)
- Internal Examiner of MSc. Thesis by Faisal Rashis (2019)
- Internal Examiner of MSc. Thesis by Kennedy Azupwah (2017)

REVIEW COMMITTEE

- The Harris Centre, Bacallieu Trail Proposals, Baccalieu Region Thriving Regions Grants (2019)
- Social Sciences and Humanities Research Council, Insight Grants (2018)
- Aldrich Annual Interdisciplinary Graduate Student Research Conference Review Committee (2018 –)

SPECIALIZED TRAINING

- July 2019: Assessing the Impact of New Approaches to Teaching and Learning. *Memorial University*, St. Johns NL
- Fall 2018: Innovative Tactics for Launching Your Product. *Stanford University*, Stanford CA
- Summer 2018: Empathize and Prototype: A Hands on Dive into the Key Tools of Design Thinking. *Stanford University*, Stanford CA
- Fall 2017: Building Business Models. *Stanford University*, Stanford CA
- Summer 2013: Identifying β-Lactam Antibiotic Resistance in the Human Microbiome. *Robert Edwards Laboratory, San Diego State University*, San Diego CA
- Summer 2012: Characterization of Cardiac Autophagy in Animal and Adult Rat Ventricular Cardiomyocyte Models. *Donald P. Shiley BioScience Center, San Diego State University*, San Diego CA
- Summer 2011: Data-Intensive Supercomputing Summer Institute (Gordon), *San Diego Super Computing Center, University of California San Diego,* San Diego CA
- Summer 2010: The National Biomedical Computation Resource Summer Institute: Challenges in Multiscale Computational Modeling, *University of California San Diego,* San Diego CA
- Summer 2009: The Integrative Computational Modeling of the Cardiac Myocyte, *Johns Hopkins University,* Baltimore MD
- Summer 2008: Mathematics in Brain Imaging, *Institute for Pure & Applied Mathematics, University of California Los Angeles,* Los Angeles CA
- Summer 2007: High Performance Computing Summer Institute, *San Diego Super Computing Center, University of California San Diego,* San Diego CA
- Summer 2006: Implementation of Visualization Techniques for Large Datasets, *Visualization Group, Lawrence Berkeley National Laboratory,* Berkeley CA

PUBLICATIONS

- S. Khan, P.K. Ashish, V. Kannelli, K. Hossain, D. Tiwari, M.N. Nagabhushana, V. Havanagi, C. Bazan. Laboratory Investigation of Sustainable Material for an Inverted Pavement, *Construction and Building Materials*, 2021, under review.
- A. Shaikh, M. Taleb-Berrouane, C Bottaro, C. Bazan. Managing Lab-to-Market Product Innovation by Using a Translational Research & Development Model and Methodology, *Journal of Engineering and Technology Management*, 2021, submitted.

- A. Datta, C. Bazan, K. Arnold. Effect of Gender Role Identity on the Entrepreneurial Intention of University Students, *Journal of Small Business and Entrepreneurship*, 2021, under review.
- Md R. Alam, K. Hossain, C. Bazan. Life Cycle Analysis for Asphalt Pavement in Canadian Context: Modeling and Application, *International Journal of Pavement Engineering*, 2021. https://doi.org/10.1080/10298436.2020.1866759.
- S. Khan, M.N. Nagabhushana, D. Tiwari, K. Hossain; U.K. Guru Vittal, C. Bazan. Performance Evaluation of Fly Ash-Based Inverted Pavement, *Journal of Transportation Engineering, Part B: Pavements*, 2021, under review.
- B. Newhook, H. Gaultois, C. Bazan. Generation of a Business Model to Help Address Food and Nutrition Security in the Baie Verte Peninsula, *Journal of Entrepreneurship and Sustainability Issues*, 2021, under review.
- C. Bazan, A. Shaikhb, K. Gillespie, T. Rushat, Y. Radeef, S. Yap, C. Finn. A Methodology for Assessing the Effect of the University's Entrepreneurial Orientation on the Academic's Entrepreneurial Propensity, *Proceedings of the Canadian Council for Small Business and Entrepreneurship Conference*, October 16-17th, 2020, Halifax, NS.
- C. Bazan, H. Gaultois, A. Shaikh, K. Gillespie, S. Frederick, A. Amjad, S. Yap, C. Finn, J. Rayner, N. Belal, A Systematic Literature Review of the Influence of the University's Environment and Support Systems on the Precursors of Social Entrepreneurial Intention of Students, *Journal of Innovation and Entrepreneurship*, Vol. 9, No. 4, pp. 1–28, 2020. https://doi.org/10.1186/s13731-020-0116-9.
- C. Bazan, H. Gaultois, A. Shaikh, K. Gillespie, S. Frederick, A. Amjad, S. Yap, C. Finn, J. Rayner, N. Belal, Effect of the University on the Social Entrepreneurial Intention of Students, *New England Journal of Entrepreneurship*, Vol. 23, No. 1, pp. 3–24, 2020. https://doi.org/10.1108/NEJE-05-2019-0026.
- Md R. Alam, K. Hossain, C. Bazan, A Systematic Approach to Estimate Global Warming Potential from Pavement Vehicle Interaction Using Canadian Long-Term Pavement Performance Data, *Journal of Cleaner Production*, Volume 273, 2020. https://doi.org/10.1016/j.jclepro.2020.123106.
- C. Bazan, A. Datta, H. Gaultois, A. Shaikh, K. Gillespie, J. Jones, Effect of the University's Environment & Support System in Shaping Entrepreneurial Intention of Female Students, *International Journal of Entrepreneurial Knowledge*, Vol. 7, No. 2, pp. 73–97, 2019. doi:10.12345-0012.
- Md R. Alam, K. Hossain, A.A. Butt, T. Caudle, C. Bazan, Life Cycle Assessment of Asphalt Pavement Maintenance and Rehabilitation Techniques: A Study for the City of St. John's, *Canadian Journal of Civil Engineering*, Vol. 47, No. 12, 2020, doi: 10.1139/cjce-2019-0540.
- W. Bouaoula, F. Belgoum, A. Shaikh, M. Taleb-Berrouane, C. Bazan, The Impact of Business Intelligence Through Knowledge Management, *Business Information Review*, Vol. 36, No. 3, pp. 130–140, 2019. https://doi.org/10.1177/0266382119868082.
- C. Bazan, A. Shaikh, S. Frederick, A. Amjad, S. Yap, C. Finn, J. Rayner, Effect of Memorial University's Environment & Support System in Shaping Entrepreneurial Intention of Students, *Journal of Entrepreneurship Education*, Vol. 22, No. 1, 2019.
- C. Bazan, "From Lab Bench to Store Shelves:" A Translational Research & Development Model and Methodology for Linking University Science and Engineering Research to Commercial Outcomes, *Journal of Engineering and Technology Management*, Vol. 53, pp. 1–18, 2019. doi: 10.1016/j.jengtecman.2019.05.001.
- P. Paolini, D. Pick, J. Lapira, G. Sannino, L. Pasqualini, C. Ludka, L.J. Sprague, X. Zhang, E.A. Bartolotta, E. Vazquez-Hidalgo, D. Torres-Barba, C. Bazan, G. Hardiman. Developmental and Extracellular Matrix-Remodeling Processes in Rosiglitazone Exposed Neonatal Rat Cardiomyocytes, *Pharmacogenomics*, Vol. 15, No. 6, pp. 759-774, 2014.

- N. Ravindran, C. Bazan, B.R. Ito, R.A. Gottlieb, R.M. Mentzer. Impaired Cardiac Autophagy in Metabolic Syndrome Despite Intact AMPK and mTOR Signaling, *Circulation Research*, Vol. 113, No. 4, 2013.
- C. Bazan, D. Torres, T. Hawkins, H. Nguyen, E. Vazquez, S. Anderson, R. Lemus, J. Mitchell, J.T. Moore, M.J. Martinez, D. Moore, J. Larsen, P. Paolini. Contractility Assessment in Enzymatically Isolated Cardiac Myocyte, *Biophysical Reviews*, Vol. 4, No. 3, pp. 231-243, 2012.
- C. Bazan, M. Abouali, J. Castillo, P. Blomgren. Mimetic Finite Difference PDE-based Models in Image Processing, *Computational & Applied Mathematics*, Vol. 30, No. 3, pp. 1–20, 2011, ISSN 0101-8205.
- C. Bazan, T. Hawkins, D. Torres-Barba, P. Blomgren, P. Paolini. Introduction of Non-linear Elasticity Models for Characterization of Shape and Deformation Statistics: Application to Contractility Assessment of Isolated Adult Cardiocytes, *BMC Biophysics*, Vol. 4, No. 17, 2011, doi:10.1186/2046-1682-4-17. Featured Article. "Biomedical Picture of the Day," MRC Clinical Sciences Centre.
- C. Bazan, D. Torres-Barba, P. Blomgren, P. Paolini. Image Processing Techniques for the Assessment of Contractile Responses in Neonatal Cardiac Myocytes, *International Journal of Biomedical Imaging*, Volume 2011, Article ID 729732, 9 pages, doi:10.1155/2011/729732.
- M. Ghochani, A.R.C. Baljon, T. G. Frey, C. Bazan. Volume Segmentation with Gray-Level and Spatial Correlation-Based Entropic Tresholding, Contour Detection, and Contour Extraction from Tomographic Image Data, *Research Report CSRCR 2010-05*, San Diego State University, 2010.
- C. Bazan, D. Torres-Barba, P. Blomgren, P. Paolini. Image Processing Techniques for Assessing Contractility in Isolated Adult Cardiac Myocytes, *International Journal of Biomedical Imaging*, Volume 2009, Article ID 352954, 11 pages, 2009, doi:10.1155/2009/352954.
- C. Bazan, M. Miller, P. Blomgren. Structure Enhancement Diffusion and Contour Extraction for Electron Tomography of Mitochondria, *Journal of Structural Biology*, Vol. 166, No. 2, pp. 144–55, 2009.
- C. Bazan, P. Blomgren. Image Smoothing and Edge Detection by Nonlinear Diffusion and Bilateral Filter, *Research Report CSRCR 2007-21*, San Diego State University, 2007.
- C. Bazan, P. Blomgren. Total Variation-Based Image and Structure Enhancement for Electron Tomography, *Research Report CSRCR 2007-17*, San Diego State University, 2007.
- C. Bazan, P. Blomgren. Parameter-Free Adaptive Total-Variation Based Noise Removal and Edge Strengthening for Mitochondrial Structure Extraction, *Research Report CSRCR 2007-16*, San Diego State University, 2007.
- K. Pukthuanthong, L. Thomas, and C. Bazan. Random Walk Currency Futures Profits Revisited, *International Journal of Managerial Finance*, Vol. 3, No. 3, pp. 263–286, 2007.
- C. Bazan, P. Blomgren. Parameter-free TV-based Image Processing, *Research Report CSRCR 2006-03*, San Diego State University, 2006.
- C. Bazan, P. Blomgren. Adaptive Finite Element Method for Image Processing, *Proceedings of COMSOL Multiphysics Conference*, pp. 377–381, 2005.

PRESENTATIONS

- C. Bazan (2020). Effect of the University's Entrepreneurial Orientation on the Academic's Entrepreneurial Propensity. *Canadian Council for Small Business and Entrepreneurship (CCSBE/CCPME) 2020 Virtual Conference*, Toronto, ON, Canada.
- C. Bazan (2020). Research Mobilization: Memorial University as an Aspiring Entrepreneurial University. *Bi-Annual Meeting, Canadian Engineering Education Association (CEEA-ACEG), Engineering Entrepreneurship and Technological Innovation Special Interest Group*, Winnipeg, MB, Canada.
- F. Shahhoseini, A. Azizi, C. Bazan, C. Bottaro (2020). Porous Thin Film Devices for Environmental Water Monitoring of Persistent Organic Pollutants, *LEADERS &*

PEOPLE Virtual Symposium: Water Management in a Changing Climate, St John's, NL, Canada.

- S. Khan, M.N. Nagabhushana, K. Hossain, D. Tiwari, U.K.G. Vittal, C. Bazan (2021). Field Investigation of Inverted Pavement for Low Volume Road, *100th Annual Meeting of the Transportation Research Board*, Washington, DC, USA.
- F. Shahhoseini, E. Langille, A. Azizi, C. Bazan, C. Bottaro (2020). Thin Film Molecularly Imprinted Polymers (MIPs) for Selective and High Throughput Analysis of Biological Samples, *Canadian Chemistry Conference and Exhibition*, Houston, TX, USA.
- C. Bazan (2019). Not Your Grandparents' University. *Research & Industry Engagement Series. Engaging Ideas: Building Community Through Entrepreneurship*, St John's, NL, Canada.
- C. Bazan (2019). "From Lab Bench to Store Shelves," Translational R&D Model and Methodology. *Research Week*, St John's, NL, Canada.
- C. Bazan (2019). Research Mobilization as a Means for Value Creating Community Engagement. *The PEOPLE 2019 Symposium & Workshop*, St John's, NL, Canada.
- H. Gaultois, M. Amini, B. Newhook, C. Bazan (2019). A Business Model to Help Address Food and Nutrition Security in the Baie Verte Peninsula. *Third Baie Verte Peninsula Thriving Regions Workshop*, Baie Verte, NL, Canada.
- A. Shaikh, C. Bazan (2019). Popular Approaches in Entrepreneurship Training. *CSO Academy: Summer Entrepreneurship*, Guangzhou, China.
- A. Shaikh, C. Bazan (2019). Entrepreneurial University. *Start-Up to Scale-Up: Management & Policy Interventions International Conference*, Aligarh, India.
- C. Bazan (2019). Entrepreneurship in Engineering. *Association of Canadian Chairs of Chemical Engineering (ACCCE) Meeting*, St John's, NL, Canada.
- A. Way, I. Saika-Voivod, C. Bazan (2018). Manufacturing Defect Detection in Molecularly Imprinted Polymers Using Self Organizing Maps. *The Twenty-Seventh Annual Newfoundland Electrical and Computer Engineering Conference*, St. John's, NL, Canada.
- R. Kumar, B. Kishan, C. Bazan (2018). What's New in Cleantech in Newfoundland and Labrador. *Newleef Green Economy Conference*, St. John's, NL, Canada.
- B. Newhook, H. Gaultois, C. Bazan (2018). How Do We Make Fresh and Local Affordable? *Newleef Green Economy Conference*, St. John's, NL, Canada.
- B. Newhook, H. Gaultois, C. Bazan (2018). Development of a Business Model to Help Address Food and Nutrition Security in the Baie Verte Peninsula. *Second Baie Verte Peninsula Thriving Regions Workshop*, Baie Verte, NL, Canada.
- A. Ali, K. Hossain, H. Dhasmana, M. Safiuddin, C. Bazan, A. Hussein (2018). Field Inspection and Classification of Pavement Distresses in St John's. *CSCE 2018 Annual Conference*, Fredericton, NB, Canada.
- C. Bazan (2017). Approaches for Linking Research to Commercial Outcomes. *Global Consortium of Entrepreneurship Centers 2017 Conference*, Halifax, NS, Canada.
- C. Bazan (2015). From Eureka! To Team Science. *Water Research Exchange*, St John's, NL, Canada.
- C. Bazan (2013). Industry-Academia Interaction. *10th Annual Workshop for Applied Computational Sciences and Engineering & Computational Science Curriculum Development*, San Diego, California, USA
- C. Bazan (2013). Mimetic Finite Difference PDE Based Models in Image Processing. *2013 SIAM Annual Meeting*, San Diego, California, USA
- C. Bazan (2012). Computational Science Research Center & ACSESS. *9th Annual Workshop for Applied Computational Sciences and Engineering & Computational Science Curriculum Development*, San Diego, California, USA

OFFICE HOLDER

- 1999 – 2001: President of the Alumni Association, *Faculty of Science and Technology, Catholic University,* Asuncion Paraguay
- 1998 – 2001: Member of the Faculty Council, *Faculty of Science and Technology,*

Catholic University, Asuncion Paraguay
- 1996 – 1998: President of the Faculty Association. *Faculty of Science and Technology, Catholic University,* Asuncion Paraguay
- 1996 – 1998: Member of the Board of Directors. Faculty Federation, *Catholic University,* Asuncion Paraguay
- 1990 – 1997: Secretary of the *Paraguayan Petroleum Chamber*, Asuncion Paraguay
- 1989 – 1990: Vice-president of the *Paraguayan Petroleum Chamber*, Asuncion Paraguay

SCHOLARSHIPS & AWARDS

- 2005 – 2009: **National Institutes of Health Fellowship**, Pre-doctoral Fellow sponsored by *San Diego State University*
- 2001 – 2003: **FULBRIGHT Scholar**, Graduate Scholar sponsored by *LASPAU/Harvard University*
- 1999 – 2000: **Youth of the Year Nominee**, nominated by the *Rotary Club*
- 1995: **Honor Diploma with Merit of Distinguished**, from *Faculty of Science and Technology, Catholic University of Asuncion*
- 1991: **Merit of Excellence Award**, from *Polytechnic University of Catalonia*
- 1990 – 1991: **Institute for Ibero-American Cooperation Scholar**, Graduate Scholar sponsored by the *Spanish Department of Education*
- 1979 – 1980: **American Field Service Scholar**

PATENTS

- R. Rojeck, C. Bazan. *Systems and Methods for Generating a Metric of Financial Status Relative to a Financial Goal*. No: US007865419 B2. Date: January 4, 2011.

SCHOLARLY JOURNALS

Editorial Board Member for the following journals:
- Modern Applied Science Journal (Associate Editor)
- The Scientific World Journal
- ScienceJet journal

Reviewer for the following journals:
- Journal of Engineering and Technology Management
- SAGE Open
- IEEE Transaction on Image Processing
- SIAM Journal on Imaging Sciences
- Elsevier Signal Processing International Journal
- Modern Applied Science Journal
- Journal of Proteomics & Bioinformatics
- British Journal of Mathematics & Computer Science

MEMBERSHIPS

- CEEA-ACEG Special Interest Group: Engineering Entrepreneurship and Technology Innovation
- Common Mission Project: The Lean Innovation Educators Summit
- Professional Engineers and Geoscientists Newfoundland & Labrador
- Honor Society Scholars Without Borders
- International Honor Society Beta Gamma Sigma
- San Diego State University Alumni Association
- Catholic University of Asuncion Alumni Association

VOLUNTEER WORK

- CDL-Atlantic Memorial University Faculty Lead
- Fire Warden S.J. Carey Building 3rd Floor

LANGUAGES

- English & Spanish