

Daniel R. Robles, PE
Edmonds WA, 98026
(425) 361-8499

SUMMARY: 35 years progressive and diverse engineering, project delivery, and business analysis responsibilities. Currently providing independent expert witness services representing both plaintiffs and defendants at the intersection of mechanical failure, business practices, and standard of care. Specific areas of practice include plumbing systems, drain, waste, vent, and domestic supply as well as water system failures, water intrusion, building maintenance, corrosion, and mechanical systems. Primarily serving the legal, insurance, and financial industries as well as private, municipal, and government clients.

Licensed mechanical engineer experienced in aerospace, building sciences, and new technology platforms. Business founder, owner, and educator with strong speaking, authorship, and management skills. Noted researcher in engineering, finance, insurance, and technology fields. International engineering, project management and front-line team leadership. Customer service experience related to high value machinery and critical systems. Design and test engineering of industrial machinery, tooling, and precision mechanisms for mechanical systems, construction, aerospace and orbiting spacecraft.

EDUCATION

- Masters in International Business (MBA); Seattle University. Seattle WA, 2002.
- Bachelor of Science Mechanical Engineering, (BSME); University of New Haven, 1985

Certifications:

- Licensed Professional Engineer, Mechanical Engineering; CA #30667, WA #44394
- MIT Professional Education; AI and Machine Learning, 2024

PROFESSIONAL EXPERIENCE

2008 – Present: Community Engineering Services PLLC. Founder / Owner, Edmonds, WA.

- Expert witness (plaintiff and defense) for plumbing product failures, contractor failures, private party disputes, contractor standard of care, insurance claims.
- PEX, Aquatherm, PPR, Galvanized Steel, Copper, CPVC, cast and ductile iron failures
- Serving legal, insurance, HOAs, condominium boards, government and financial industries.
- Resolution of unique building problems including piping issues, building envelope problems, water intrusion, mold, and mechanical systems.
- Re-piping high rise, midrise, and low rise structures
- Building Envelope engineering and condominium conversions.
- Feasibility studies for agricultural meat production facilities.
- Prototype design for closed-containment mariculture system.
- Maintenance planning, financial reserves analysis, construction management (RFI/RFP/RFQ)
- Facility Condition Assessments per ANSI E2018-08.
- Artificial intelligence, machine learning, Prompting applications for Engineering

09/2009 – 06/2012 Co-founder, Chief Innovation Officer: Social Flights, LLC, Smyrna, TN a ride sharing service for private jets.

- Pioneer in collaborative enterprise, network platforms and shared asset commerce (pre-Uber).
- Statistical yield modeling and route probabilities.
- Airport availability, aircraft performance, and passenger/crew demographic analysis
- Acquired by Avianis, Inc

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2006-2010: Adjunct Faculty, City University of Seattle, WA.

- Instructor of International Business / International Management.
- Experienced in classroom, on-line, hybrid, and international education delivery.
- Curriculum Development

11/2004-01/2008: Account Manager, Airline Support; The Boeing Company, Everett, WA;

- Front-line critical team leadership toward resolution of complex in-service aircraft issues.
- Represented All Nippon Airways (ANA); responsible for 124 widebody aircraft fleet
- Additional international airline customers include Air Uzbekistan, Saudia and Aeroflot.
- Resolved issues in all aircraft systems; reliability, operations, certification.
- Dispute resolution; vertical (corporate) and horizontal (flightline) escalation.

01/1997–01/2002 Account Manager, Customer Engineering; The Boeing Company, Everett, WA. Commissioning Agent.

- Front-line critical team leadership for the commissioning, certification, delivery of aircraft
- New aircraft configuration and specifications support.
- Delivered (24) B777-200 aircraft into service with a combined value of 7 billion dollars
- Represented airline customer for system test, operations, and test flights
- Resolution of disputed performance or variance in client expectations.
- Contract development, specification development, transfer of ownership

1994-1997 Director of International Projects, Baja California, MX; CETYS University; economic development and comparative education research

- Prepared over 250 Mexican Engineers to EIT/PE engineering board exams.
- Economic development consultant to Baja California State Government
- Consultant to academia and industry implementing the NAFTA Mutual Recognition Document for International Mobility of Engineering Professionals.

1993-1994 Project Manager, Hollywood entertainment industry: Special mechanical / animatronic effects for Hollywood film, commercial, and theme park industry.

- Jaws II theme park water ride – Universal Studios Florida
- TMNT motion picture – animatronic head gear
- Practical Computers (working props); commercials, television series, and motion picture projects

1989-1993 Senior Test Engineer Rockwell International, Space Transportations Systems Division, Downey, CA: Space Shuttle Endeavor and orbiter modernization program / upgrades.

- Drogue parachute retrofit and operation tests: mechanical, thermal, acoustic, vibrations, structural
- ABS Carbon Brakes; Full scale dynamic simulation of landing gear operation.
- Extended orbiter pallet tests; installation of life support systems supporting extended missions
- Hydrogen leak anomaly tests; hydrogen leak detection and resolution in main engine chamber
- Thermal tile moisture absorption control; detection and mitigation tests
- Shuttle to 747 carrier support bearings.

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1987-1989 Design Engineer III, Hughes Aircraft, Space and Communications Systems Division, El Segundo, CA. Precision mechanisms design for the horizontal deployment of the MMB II Satellite system from the Space Shuttle orbiting vehicle.

- Layout of cradle supporting horizontal satellite in orbiter cargo bay
- Integration of satellite ejection system between orbiter, cradle and cargo.
- Snubbing device for supporting loose components for re-entry

1985-1987 Design Engineer, Northrop Corporation. Advanced Systems Division, Pico Rivera, CA B-2 Spirit Strategic Bomber. Design and development of tooling for complex carbon fiber aircraft structures. Top Secret Clearance.

- Leading edge removal and repair tooling
- Engine bay fire shroud removal and repair tooling
- Stealth mode rigging and calibration tooling
- Other classified applications

Orange Research Corporation, Orange CT; design of variable area fluid flow and pressure gauges. Flow restrictor devices for aerospace hydraulic applications. **Electrostatic Technology Systems Incorporated, New Haven, CT:** Design of electrostatic coating machinery, heat transfer and forced air convection cooling. **RMS engineering Corp. New Milford, CT** Machinist, Manufacturing

Volunteer and Non-Profit:

1996– Present. Founder: The Ingensist Project, Edmonds, WA (non-profit):

- Novel Application of blockchain, game theory, and artificial Intelligence to engineering
- Founded The Integrated Engineering Blockchain Consortium (venture funded)
- Pioneering “Engineer-in-the-loop” for artificial Intelligence in the built environment
- Decentralization, and hyperconnectivity of STEM professions.
- Economic measurement of intangible assets.
- Knowledge network valuation and articulation.
- Invented: WIKiD Tools, Algorithm, The Value Game, Curiosumé, Game of Zero

2014 – 2020: City of Edmonds Planning Board: Appointed by Mayor Dave Earling (Chairman 2020)

2015: Leader FinTech Task Force; National Society of Professional Engineers

2012: Rotary International Paul Harris Fellow

2012: Toastmaster International; Regional speech competition winner

Publications:

Robles, D. R. and Layton, B. E. 2020; “The Innovation Bank; Decentralization of the Engineering and STEM professions” **ASME; International Mechanical Engineering Conference and Exhibition:** Juried paper and presentation: https://www.coengineers.com/wp-content/uploads/2021/04/R8_IMECE2020-23015.pdf

Robles, D., 2007, "Innovation Bank: A Novel Method of Business Related to the Integration and Capitalization of Knowledge Assets," USPTO, US20070226163A1.

<https://patents.google.com/patent/US20070226163A1/en>

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Robles, D., Nurnberger, B., Layton, B.E., 2017, "Whitepaper: The first blockchain developed by Engineers for Engineers" https://coengineers.io/publications/CoEngineers_Whitepaper.pdf

Robles, D., Layton, B.E. et al. (2016) "Blockchain Technology: Implications and Opportunities For Professional Engineers" National Society of Professional Engineers; 2015-2016 FinTech Task Force <https://www.nspe.org/sites/default/files/resources/pdfs/NSPE-Whitepaper-Blockchain-Technology-2016-final.pdf>

Robles, D., Cetto, J. A., Garcia, A., Rodríguez, D., and Valadéz, B., 1996, "A Model for The International Mobility of Engineering Professionals Restructuring the University in the NAFTA Era," CETYS University / San Diego State University, Mexicali, Baja California. <https://www.ingenesis.com/wp-content/uploads/2011/03/INCNE596.pdf>

Deragon, J., Cate, D., Slosky, M., Robles, D. R., 2011, "Social Flights," <http://web.archive.org/web/20120325201424/https://www.socialflights.com>

Robles, D. R., and Bowers, M., E., 2017, "The Revolutionary Blockchain – An Opportunity for Engineering Stewardship American Society of Civil Engineers Grand Challenge Contest Winner; Best Value – IoT." https://www.scsolutions.com/wp-content/uploads/2017-03-01_BlockChainEngrStewardship_RoblesBowers.pdf

Select keynotes, panels, speaking engagements

International Bridge Construction Conference, Washington DC, June 2019. New Perspectives on Accelerated Bridge Construction, Co-Author https://youtu.be/JzSMvkle_Fc

Product Lifecycle Management Conference, Chicago November 2019. Keynote – Why Engineers Must Pay Serious Attention to Blockchain Technology. <https://youtu.be/nfiMR8frPRw>

Design-Build Society of America – Seattle Chapter. How Blockchain Can Enhance Design-Build Process. Part 1: <https://youtu.be/FYbx4Xpd6TY>
Part 2: <https://youtu.be/EjK3IBdkKnc>

Silicon Valley Blockchain Security Forum. June 23, 2018. Introducing the Physical Sibling of the Digital Twin <https://www.eventbrite.com/e/silicon-valley-blockchain-security-forum-tickets-47011827642>

Engineering News Record (a McGraw Hill Publication) FutureTech National Conference Blockchain in the Built Environment, Panelist June 6, 2018 San Francisco <https://youtu.be/YfPmneK5uJA>

Joint MIT-Harvard Alumni Club, Washington DC, September, 2018. Risk Management in Finance, Insurance and Engineering with Blockchain

CAASE2018 Keynote; Why Engineers Should Take Blockchain Very Seriously: <https://youtu.be/Yghex5QhOH0>

American Society of Civil Engineers Grand Challenge Innovation Contest winner, Washington DC: Blockchain Technology and the Emerging Tech Sector, July 2017 <https://youtu.be/LQzF6g3L6Oo>

Indiana Society of Professional Engineers and Washington Society of Professional Engineers. Blockchain technology and the Emergent Tech Sector: <https://youtu.be/i7MfTr64ag4>

National Council of Professional Engineers National Conference Seattle, WA Emerging Opportunities in The Engineering Profession July 2015 https://youtu.be/CMeQ_rNkGKU

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National Association of Insurance Commissioners Center for Insurance Policy and Research; Implications and opportunities for Blockchain Technology in insurance, April 2016 New Orleans.

SIBOS 2011 SWIFT Innotribe Sessions Toronto CA Sept 19-24. Keynote speaker and panelist: New Value Movement (video) <https://youtu.be/e3G0A2gQnew>

Seattle Blockchain Meetup 2015. Curiosumé – Converting the Resumé to Cryptography
<https://youtu.be/HLKl4xJGPCw>

CETYS University / San Diego State University, Daniel Robles Alvarez Facultad de Ingeniería Centro de Enseñanza Técnica y Superior Mexicali, Baja California, México Restructuring the University in the NAFTA Era - A Model For The International Mobility of Engineering Professionals, April 1996

Seven-times Panelist/Moderator at Future of Money and Technology Summit, San Francisco CA (2010-2017)

- Identity Verification for Blockchain Technology; Future of Money and Technology Summit, San Francisco, Dec 2015 <http://www.futureofmoney.com/>
- Fueling The Decentralization Movement, Moderator: The Future of Money and Technology Summit 2014; San Francisco, CA <http://www.futureofmoney.com/>
- The Integration of Community Currencies, Moderator; The Future of Money and Technology Summit; San Francisco, CA 2013 (video)
- The New Value Movement, Panelist: The Future of Money and Technology Summit; San Francisco, CA 2012 (video)
- Monetization of Intangible Capital Panelist: The Future of Money and Technology Summit; San Francisco, CA 2011
- Non-Quantifiable Exchanges Panelist; The Future of Money and Technology Summit; San Francisco, CA 2010

The Boeing Company Technical Fellowship Conference series.

- *Innovation Economics and the Innovation Bank*, Boeing Technical Excellence Conference #9 (BTEC), St. Louis, 2005.
- *The Failure of the NAFTA Mutual Recognition Document for Engineering Professionals; and How that Affects Global Sourcing 10 Years Later*, BTEC #11, Seattle 2006 (award, best of).
- *Innovation Economics; The Integration and Capitalization of Knowledge*, BTEC #12, 2007, St. Louis and Boeing Knowledge Management Forum, Seattle 2007, Best of BTEC Seattle 2007