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Nota di contenuto	Intro -- Preface -- Gathering Stories -- Book Aims and Organization -- Intended Audiences -- Conclusions -- Contents -- Section I: Introduction -- Energetic Trailblazers: Kate Gleason, Edith Clarke, and Mária Telkes -- Introduction -- Kate Gleason (1865-1933) -- Edith Clarke (1883-1959) -- Mária Telkes (1900-1995) -- References -- Mechanical Engineering Micronarratives and/as Changing Stories of Women in STEM -- Addressing the Problem of Women in STEM -- Hidden Figures and/or Hidden in Plain Sight? -- References -- In Pursuit of an Inclusive Learning Environment in Engineering -- Creating Innovative Solutions, Rather than Problem-Solving -- A Technical Example -- Unlikely Partners Experience -- An Application in Culture - West Point -- Embracing Diversity of Thought -- Forming a Vision Around Equity, Inclusion, and Diversity -- The WE@RIT, EFFORT@RIT, and AdvanceRIT Journey -- Helpful Tips, Tools, and Techniques -- Conclusion -- References -- Section II: New Perspectives -- Educating the Next Generation of Mechanical Engineers in Fluid-Thermal Sciences -- The Nexus of Education -- The Value of Mentoring Aspiring Engineers -- Preparing Undergraduates for a Career in Mechanical Engineering -- Educating and Training Graduate Students -- Preparing for a Career in Industry -- A Profession in Academia -- Concluding Remarks -- References -- Circular Systems and the Culture of Collaboration -- Introduction -- Background -- Our Journey Begins

-- Team Motivation and Values -- Compassion and Kindness -- Authenticity and Respect -- Humility and Equity -- Listening and Happiness -- Trust -- Setting Norms: How We Manifest Our Values -- Checking In -- Stretching -- Advocating -- Positioning -- Work Norms -- How the Journey Has Changed Us -- Conclusion: View from the Mountain -- References -- How to Stop Imposter Syndrome from Sabotaging Your Career.

What Is Imposter Syndrome, and How Do I Know I Have It? -- Question 1: At What Times in Your Career Have You Experienced Imposter Syndrome and How Did You Overcome It? -- Stephanie -- Toni -- Exercise 1. The Game Face -- Question 2: What Role Does Confidence and Experience Play in Imposter Syndrome? -- Stephanie -- Toni -- Question 3: Why Do You Think Imposter Syndrome Is Particularly Acute When Transitioning from Technical to Management Roles? What Can You Do to Combat This? -- Toni -- Stephanie -- Question 4: What Are Signs That Imposter Syndrome Is Sabotaging You at Work? -- Toni -- Stephanie -- Question 5: What Steps Can You Take to Prevent Imposter Syndrome or Stop It When It Occurs? -- Stephanie -- Exercise 2. Take Immediate Steps to Overcome Imposter Syndrome -- Toni -- Exercise 3. Define Your Definition of Success -- Exercise 4. Create Custom Emotional Guidelines -- Conclusion -- References -- From Brazil to the World: The Journey of a Fluid Dynamics Experimentalist -- From Journalism to Engineering -- A Woman Among the Men -- What Is an Experimental Research Lab? -- The PhD in Engineering Experience Beyond the Lab -- The Next Generation of Experimentalists -- References -- Remaining Curious: Rethinking Contributions and Opportunities as Mechanical Engineers -- Contributions Come in Many Forms -- Don't Discount the Broader, Non-Research Contributions -- Career Goals and Directions Don't Have to Be Fixed -- You Can't Say for Sure What the Future Holds, But Neither Can Anyone Else -- Sometimes the Move That Goes Against Conventional Wisdom Might Really Be the Right One -- It's Okay to Take Risks -- Remain Curious and Open to Different Types of Career Opportunities, and Find the Right Mentors and Sponsors to Guide Exploration -- Conclusion -- References.

The Changing Landscape of Mechanical Engineering: Learning to Embrace My Ecofeminist Identity Within the Elitism of Engineering -- Introduction -- My Past Journey: Where I Came From -- My Internal Journey: How I Came to This Work -- My External Journey: What Others Think/Feel About This Work -- My Future Journey: Where Do I Go from Here -- References -- Section III: Research/Technical -- From Watching Planes in the Sky to Making Turbines More Efficient -- My Education and my Father's Profound Influence -- Lesson 1: Be Brave in Trusting your Instincts -- Building a Research Laboratory as a New Professor -- Lesson 2: Know When to Change Course Even When It Is Difficult -- Expanding My Research at Virginia Tech -- Lesson 3: Developing Long-Lasting Colleagues Through Collaborations -- Moving My Research to Penn State -- Lesson 4: Take on Risk -- Lesson 5: Trusting My Instincts That Gas Turbine Research Is Alive and Well -- References -- Nonlinear Pathways into Mechanical Engineering -- Path to Engineering -- Early Experiences in Engineering -- Doctoral Pursuits in Engineering -- MIT Bound -- Starting My Own Lab @CMU -- Science Fiction Dreams -- References -- My Journey from Fixing the Lawnmower to a Career in Fuels and Combustion -- Key Learnings About Myself -- Key Things That Supported Me-From Parents, Faculty, and Others-In My Eventual Career -- What Helps Me Now -- References -- Do Pipeline Engineers Want to Pollute the Environment? -- Why Study Engineering? -- A Young Engineer in Oil and Gas -- Corrosion Is

Not 'Bad', Corrosion Is 'Natural' -- Delivering Energy -- Winter Pipeline Construction -- How Are Pipelines Inspected? -- Future Opportunities -- References -- Intelligent Control to Reduce Vehicle Energy Consumption and Greenhouse Gas Emissions -- Introduction. Research on Developing Intelligent Control Systems for Advancing Vehicle Electrification -- Advanced Vehicle/Powertrain Control and Predictive Control of Connected and Automated Vehicles -- Electric Vehicle and Smart Grid Integration -- Educational Effort to Prepare Students for Transportation Electrification -- Conclusions -- References -- Silicon Solar Photovoltaics: Slow Ascent to Exponential Growth -- Introduction -- Brief Historical Lookback -- Dust in Rust -- Rust in Dust -- TAET Program -- Photovoltaics -- Innovations in Si PV -- Cell Level -- Substrate Level -- Modules -- PV Systems -- My Research at the Photovoltaics Microelectronics Intersection -- Cell Level -- System Level -- System Monitoring -- PV Degradation -- Spectrum Conversion -- Silicon Photovoltaics from Present to Future -- Conclusions -- References -- From Nuclear Engineering to Roller Coasters: The Ride of a Lifetime -- Safety Performance Level of Components -- Engineering Analysis -- Amusement Ride Safety -- Quality Assurance -- Regulatory Oversight -- Stakeholder Engagement -- Conclusion -- References -- Section IV: Career Journeys -- Unveiling My Engineering Identity -- I Am Chinese -- I Am a Girl -- I Am a Fashionista -- I Am Taiwanese -- I Am an Engineering Student (Again) -- I Am a Researcher -- I Am an Educator -- I Am an Engineer -- References -- Connected by the Environment: The Unique Yet Intertwined Journeys of Two Energy and Water Researchers -- Foreword: To Solve Global Energy & Environmental Challenges, We Need Women on the Team, by Dr. Michael E. Webber -- Introduction -- "When I Was Just a Little Girl, I Asked My Mother, 'What Will I Be?'" [16]: The Formative Years -- "To Face This on My Own, Well I Guess This Is Growing Up" [17]: The College Experience and First 'Real-World' Job. "At First I Was Afraid, I Was Petrified...I Will Survive" [18]: Navigating the Ups and Downs of Graduate School -- "Today Is Where Your Book Begins...The Rest Is Still Unwritten" [19]: Life as Early Career Academicians -- Conclusion -- References -- From Spacecraft to Biocomposites: The Story of a Shuttle Launch, a Recession, a Surprise Doctorate, and Motherhood -- "I Can't!" -- My Most Valuable Lessons in Energy Engineering -- College Time -- My Career at CHA Consulting -- Life Happens (Sorry for the Interruption) -- My Career Continued... -- What's Next? -- I Never Claimed to be a Lady -- The Priming Years -- The Transformational Years -- The Performing and Quasi-Conforming Years -- The Re-forming Years -- References -- Severing the Links of the "Gordian Knot": Envisioning Doctoral-Level Engineering Education and Workforce Sustainability as a Key to Environmental Sustainability -- Trapped Within My Own Gordian Knot -- Cutting the Links of My Gordian Knot -- Severing the Gordian Knot of Sustainability Through the Lens of Engineering Doctoral Education and Workforce Sustainability -- References -- Appendix -- Key Project Achievements -- Project Evaluation -- Index.
