

- **PRODUCT INNOVATION** – Re-imagining and Reinventing Products and Services
- **EMERGING SCIENCE & TECHNOLOGY:** Generative AI | Prompt Engineering | Internet of Things (IoT), Industrial IoT
- **SYSTEMATIC INNOVATION METHODS:** Ideal Result | Directed Brainstorming | Technology Trends | S-Curves
- **EFFECTIVE INNOVATION METHODS:** Leading teams using virtual tools
- **SCIENCE & ENGINEERING:** Chemical Engineering | Applied Physics | Polymers | Optics
- **NEW PRODUCT & TECHNOLOGY DEVELOPMENT:** Conception to Commercialization | Road-Mapping | Strategy | Execution
- **PATENTS:** Background Art | Patentability | Claim Strategy | Right to Practice Art Discovery
- **LEAN STARTUP & DESIGN THINKING:** Job Definition | Minimal Viable Product (MVP) | Design/Build/Learn | Pivot
- **COMPETITIVE ANALYSIS:** Teardowns | Assessment | Reverse Engineering | SWOT | Market Gaps | Strategy
- **TEST METHOD DEVELOPMENT:** Optical | Mechanical | Polymer | Accelerated Aging
- **TECHNICAL:** Chemical Engineering, Physics, Optics, Polymers, IoT
- **LEADERSHIP:** New Technology, New Products, Multidisciplinary, Multiple Functions
- **Prototyping**, reverse engineering
- Product and process **troubleshooting**
- **Solving technical problems** to create more efficient customer service calls

Consult to Startups, Small & Mid-size businesses, and Investment Funds (VC, Angel) in the following areas:

INTELLECTUAL PROPERTY:

- ~ Strategy & Claim Structuring
- ~ Patent Strength Assessment and Improvement
- ~ Picket-Fencing
- ~ Patent Busting – Invalidation and Workarounds

INNOVATION PROCESSES

- ~ Lean Startup & Design Thinking – Minimally Viable Product (MVP), Iterative Prototyping, Customer Jobs Definition
- ~ Front End of Innovation (FEI)
- ~ Systematic Innovation Processes - Directed Brainstorming, TRIZ, Others
- ~ Technology Evolution to Next S-Curve
- ~ Failure Prediction and Prevention
- ~ Failure Analysis

PRODUCTS & TECHNOLOGY:

- ~ Product Development - From Conception to Commercialization
- ~ Product and Technology Road Mapping & Development Strategy
- ~ Technology Development

BUSINESS ANALYSIS:

- ~ Patent and Technology Assessment of Potential Acquisitions
- ~ Value Delivery Stream Mapping, SWOT Analysis, Porter's

SUBJECT MATTER EXPERTISE:

- ~ Integration of Materials, Optics, And Digital Systems
- ~ Advanced SciTech Product and Technology Development
- ~ Intelligent Transportation Systems (Smart Infrastructure and Materials) – ALPR, VLPR, V2I, I2V
- ~ Optical Metrology (Includes Near-IR) – Display Backlights, Illumination

Systems, Image Quality Analysis

- ~ Imaging Systems: Digital Imaging, Particularly in The Near-IR, Projection, Image Quality Measurement, E-Paper, Electrophoretic Displays
- ~ Non-Imaging Optics - Display Front-Lighting and Backlighting, Daylight Redirecting Optics
- ~ Anisotropic Optics – Birefringent Optics
- ~ Smart Green Buildings – Daylighting, Materials, Building Envelope, Smart Lighting
- ~ Stress Development in Reactive Polymer Systems and Coating Stress
- ~ Materials and Sensing in The Internet of Things (IoT)
- ~ Polymer Materials – Formulation, Structure-Property, Engineering Thermoplastics, Thermosets, Elastomers, FIGP
- ~ Accelerated Testing of Polymer Systems – Heat, Humidity, UV, Thermal and Mechanical Cycling