

ANUP SREEKUMAR

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An Engineer with sound business acumen who loves to solve complex problems in product and operations management by systems & design thinking mindset balancing exploration (learning something new) & exploitation (applying what I know)

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

Cambridge, MA

M.S., Engineering and Management, *System Design and Management Program (SDM)*

2021 – 2024

- **Core:** System & Design thinking, System engineering methods, and Product Management (Digital & Hardware)
- **Business Electives:** Operations strategy, Service operations design and management, Leading change, System dynamics modeling, Digital Strategies in operations, Competitive Strategy, Valuation & Game theory.
- **Engineering Electives:** ML and Optimization in Operations Management, Inventory Analytics, Numerical methods (Optimization//RL) in transportation systems, Hands on Deep Learning, Algorithms in autonomy and decision-making, Manufacturing process controls, Medical Device Design, Robotics, and Human-System Safety.
- **Projects:**
 - Forecasting cloud demand using ML for **Google**, & Network design optimization for **Walmart** and **Schlumberger**
 - Implemented path planning (RRT), route optimization, and self-diagnosis for a hypothetical ER drone.
 - **Boston Dynamics:** Design an integrated system solution for SPOT Robot with AR/VR in consumer tourism space.
 - **Sumitomo:** Developed patient-centered positioning solution for proton therapy using empathy-driven design thinking.
 - **Designed and optimized the reward function** for an autonomous vehicle utilizing a deep Q-network, influencing driving behavior to minimize overall emissions in navigating intersections with pedestrians jaywalking
- **Thesis:** Organization culture as a tool to create an extraordinary capability from ordinary talent. Modeling business transformation as a **system dynamics model** and Re-engineering lean implementation effort to ensure sustenance of change efforts for **Toyota** (TSSC) and its partners.
- **Certification:** Sloan Analytics Certificate (*under progress*); Sloan Sustainability Certificate (*under progress*)
- **Teaching Assistant** - Supply Chain Finance, Optimization /Analytics, Logistics, Digital Supply chain, System Design

INDIAN INSTITUTE OF MANAGEMENT(IIM-A)

Ahmedabad, India

MBA | GPA 3.76 / 4 (Merit Award)

2018-2020

- Electives: Competitive Strategy, Operations research, Corporate Finance, Valuation, and Enterprise turnaround
- Capstone: Study of Circular Economy on the Automotive industry in India as a tool to reach the GDP growth target

AMRITA SCHOOL OF ENGINEERING

Coimbatore, India

Bachelor of Technology in Mechanical Engineering | GPA 9.1 / 10 (Merit Award)

2007-2011

EXPERIENCE

TESLA (Global Headquarters)

San Francisco, CA

Global Supply Manager Intern

Summer 2022

- Revitalized Glass and Trim parts sourcing using a data-driven trade-space diagram to balance performance (cost, quality, innovation) and sourcing risks, resulting in a 5% risk reduction and 7% performance improvement.
- Slashed Model S, X glass service part numbers by 35% through product re-engineering and value-chain cost analysis

TOYOTA

TKAP, Bengaluru, India

Assistant Manager, Corporate Hoshin (Strategy) Management

2016 - 2021

- Analyzed organizational performance using diverse strategy frameworks and collaborated with leadership to identify critical SWOTs – shift to electric and connected powertrain, digital operations transition, and people development.
- Re-set targets for all functions (product, process, and people) based on a "zero" base and cross-global benchmarking.
- Facilitated successful execution of strategic initiatives by creating monthly report cards, leading bi-monthly all-hands meetings, and conducting rigorous follow-ups with functional leaders to ensure 100% adherence to targets.
- Proactively identified and highlighted key risks, resulting in early resolution, and enabling achievements: 20% fixed cost reduction during covid, maintaining emissions per unit at lower and scattered production.

Product/ Program Manager (Team size = Direct 5, Indirect = 40+)

- Led development of the first manual & first electric powertrain under the Toyota-Suzuki collaboration during covid.
- Married two diverse cultures with competing goals on cost & quality. Achieved 19% cost reduction while maintaining quality and reduced project lead time by eight months by strategic sourcing, joint SE, and benchmarking workflows.
- Managed a \$30M project budget, established a critical path, and aligned project goals with Hoshin.
- Proactively engaged stakeholders to de-risk risks & develop a stress-test plan to achieve zero delays in the timeline.

- Coordinated interdisciplinary teams on business and technical aspects, including market sizing, product-market fit, competitive and regulatory analyses, value chain design, and product and process planning.
- Implemented Front loaded PDCA and set-based development to delay commitment to concept and cost for both projects. Slashed budget by 6% through resource allocation, dynamic visualization, and rebalancing.
- Implemented bi-weekly Obeya to facilitate collaboration among functions and leadership on product concepts, address project concerns, and obtain feedback on new strategies to drive project success.
- Practiced "genba" philosophy by visiting every function to deeply understand concerns and highlighting leadership timely. Visited electric powertrain suppliers to review critical technical issues and gather essential support to achieve the highest quality and reliability during product development.

Senior Engineer, Global Supply Chain Competitiveness (Team size = Direct 3) TDEM, Thailand, 2016 - 2018

- Led multi-cultural team to design \$/unit KPI tree to save \$8M in transportation costs & 900 tons of emissions annually (2050 "0" Emission goal) across 17 companies in 11 countries.
- Trained to be a Toyota Production System (Lean) coach through job training in diverse business conditions.
- Designed a Cost KPI tree-based approach to improving annual profits by \$1.8M (6%) at Toyota Philippines
- Established cost control unit as "\$ per vehicle" to implement proactive profit control for new car models by setting the RIGHT process from the design stage while maintaining cost competitiveness across model lifecycles.
- Contributed to promoting Toyota's "2050 Zero Emission" among affiliates. Jointly initiated ideas such as solar logistics, intermodal and integrated logistics, and paperless operations.

Engineer, Manufacturing and Supply Chain Management (Team size = Direct 10) TKAP, India 2011-2016

- Increased assembly process OEE from 91% to 94% with cost/unit KPI tree control & 4M kaizens – defect reduction by SPC, MTBF, Low-cost automation (karakuri), consumable/unit saving, flow optimization, and member training.
- Improved OEE (+22%) for six suppliers by 4M re-engineering & lean tools to boost supply chain profitability by 5%.
- Redesigned effort to design an "Ideal" value chain for 97 new parts from design stage (\$0.5M /year) and reformulated Sourcing (Pricing, SE & VA/VE) strategy for 25 electric components (13 suppliers) towards mass production (PPAP)
- Managed Supply chain (95 suppliers, 350 daily trips) operations while ensuring JIT/quality goals. Developed value chain risk map and designed mitigation and resilience (quantitative) strategies for critical parts and processes.
- Reduced cost by 30% (\$1.1M) & emissions (550 Tons) by combining the value stream map with an \$/unit KPI tree to identify opportunities and implementing ideas (kaizens) through:
 - analytical (logistics network optimization among five companies, inventory location, and quantity optimization, & logistics pricing analytics),
 - strategic (zero-cost supplier relocation),
 - technical (truck body re-engineering to reduce tare weight) &
 - digital (RPA for staff productivity, digital twin & tracking across supply chain) concepts.

ADDITIONAL INFORMATION

Unique Skills: Toyota Production (Lean) system expert, A3 / 8 Step Problem Solving, Lean Product & Process Development.

Software Skills: R, Python, SQL, Optimization (Python, Julia & MiniZinc). Power BI, Tableau, Jira, Confluence

Analytical Skills: Machine Learning, Deep Learning (Neural Net), Reinforcement Learning, and Optimization

Entrepreneurial Skills: Established a 2-acres orchid farm generating \$11K annually and providing livelihood to 3 farmers.

Interests: PADI certified diver and love Manta ray sightings, Binge watching thrillers, learning, and walking.