

# Naser Imran Hossain

📍 17162 Poblado Ct, San Diego, CA-92127

✉ naser.imran@gmail.com

☎ +1-832-552-8197

🖱 <http://nihossain.com>

in <https://www.linkedin.com/in/nihossain/>

🇺🇸 U.S. Permanent Resident (No Sponsorship Required)

## Who am I?

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Experienced Mechanical Design Engineer, Natural Problem Solver and PMI-certified Technical Project Management Professional (PMP). Skilled in Strategic Planning, Risk Assessment/Mitigation, Technical Leadership, Mechanical Design, Rapid Prototyping, Finite Element Analysis, Lean Manufacturing and Industrial Design. Holds 12+ patents in medical devices, consumer product design, and industrial innovation. Led 50+ impactful product designs sprints for biotech, consumer goods, and industrial design leaders. Expert in design methodology development and high-stakes project execution. Demonstrated 10+ years of continuous professional improvement, talent acquisition, team development and retention in technical/design leadership roles. Specializes in manufacturing scale-up operations and executive alignments

## Skills

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DMAIC/DFX | INDUSTRIAL DESIGN | SCIENTIFIC INJECTION MOLDING | CATIA/NX/SOLIDWORKS

ANSYS/ABAQUS/DYNA/COMSOL/OPENFOAM | MOLD DESIGN | FINITE ELEMENT ANALYSIS (FEA)

DESIGN THINKING | MATERIAL/POLYMER RESEARCH | TEAMCENTER/WINDCHILL/ENOVIA

TRELLO/ASANA/JIRA/MS PROJECT | DESIGN OF EXPERIMENTS (DOE) | SPC/MINITAB/R

## Professional Experience

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01/2021 – Present  
San Diego, CA

### **Director of Engineering (Previous Role: Engineering Manager)**

*Mettler Toledo International Inc*

- Spearheading Product Development, R&D, New Product Introduction (NPI) & Sustaining Engineering responsibilities, leading to a revenue growth of \$5M YoY
- Leading a team of about 15 engineers (ME/EEE/IE) in MX & USA to accomplish quarterly mfg and quality KPIs contributing to a cost savings of \$1 MM/yr
- Developing groundbreaking products for the pipette tip/medical consumables and life sciences industry, with a cumulative sales value of \$10 million, resulting in a 15% increase in market share
- Leading product innovation initiatives and prioritized customer feedback ("Voice of Customer") in design decisions
- Directing the development of cutting-edge solutions for Industry 4.0 automation at the SOA facility in Mexico, leading to an annual cost savings of \$2MM/yr and a 10% improvement in production efficiency
- Implementing a simulation and Finite Element Analysis (FEA) based approach, reducing physical prototyping significantly and saving \$200,000 in capital expenditure (CAPEX) annually
- Applying lean principles in manufacturing and production, optimizing value stream mapping for Mettler Toledo and generating cost savings of \$1.2MM/yr
- Mentoring the team in stakeholder management and proactive communication, resulting in a significant improvement in cross-functional collaboration
- Facilitating team growth by nurturing individual development, fostering team synergy, and recruiting new talent, leading to noticeable increases in team productivity
- Ensuring compliance with ISO9001 and ISO13485 certifications for product development and engineering, avoiding potential penalties and maintaining product quality standards.
- Maintaining adherence to FDA 21 CFR Part 820 regulations during medical device design and quality control, preventing non-compliance issues and ensuring a successful FDA audit

01/2017 – 01/2021  
Los Angeles, CA

**Packaging Design Manager (Previous Roles: Sr Design Engineer, Simulation Engineer)**

*Niagara Bottling*

- Recruited & lead a team of around 7 engineers/scientist in a dedicated R&D Ecosystem
- Scoped out and built DOE methods and testing setups for both R&D and Manufacturing teams
- Was in charge of all primary plastic packaging design/analysis for the entire company worth \$25MM/year
- Lead with a hands on approach on ideation, prototyping, design, testing and rollout of consumer products using CAD/CAE tools and FEM/FEA methods for structural/topological optimization
- Responsible for lead time reduction in R&D workflow by 6-10% using industrial automation
- Oversaw materials and metallurgical research during 12+ major material innovation rounds.
- Coordinated introduction, negotiations and strategy meetings with 15+ vendors on a regular basis
- Applied GD&T and Statistical Analysis to streamline injection mold & tooling design.
- Oversaw 10+ Design/Utility patent submission under the design group as contributing inventor.

10/2013 – 12/2016  
Houston, TX

**Tooling Engineer II**

*Schlumberger*

- Directly managed the material selection, tool building and built testing for subsea oil extraction
- Lead instrumentation and tooling projects worth 5MM+ on North Sea and Gulf of Mexico
- Recruited, Trained and Managed a team of 3 junior engineers
- Assisted QC and Supply Chain with API 6A/17D qualification
- Defined the Finite Element Analysis principals of the entire company as a member of the FEA Board
- Performed finite element simulation on resin material

08/2012 – 02/2013  
Baton Rouge, LA

**Lead Academic Liaison**

*NASA (under NASA EPScOR program)*

- Acted as "Lead Technical Liaison" for a \$750K+ academic project with NASA KSC
- In charge of lean project management and internal feedback sprints on a bi-monthly basis
- Applied fluid mechanics simulation principals for "Prototype Proof of Concept"
- Built Thermal Barrier Coating system with numerically proven concept using plasma impingement
- Managed project finances and created reporting formats for quarterly presentations

**Education**

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2011 – 2013  
Baton Rouge, LA, USA

**M.S., Mechanical Engineering**

*Louisiana State University*

2006 – 2010  
Dhaka, Bangladesh

**B.S., Mechanical Engineering**

*Bangladesh University of Engineering and Technology*

**Patents**

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- US20200298461A1 [↗](#) - Nozzle for Reduced Outward Force On Preform Finish
- US20210122526A1 [↗](#) - Bottle assembly
- US20210061510A1 [↗](#) - Swirl bell bottle with wavy ribs
- US20210284376A1 [↗](#) - Offset wave groove bottle
- US20220177199A1 [↗](#) - Multiple asymmetric anchor container closure