

NEHA CHOKSI

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EDUCATION

Stanford University, Masters degree in *Electrical Engineering*
Vanderbilt University, Bachelors degree double major in *Electrical Engineering* and *Mathematics*
Graduated *summa cum laude*

EXPERIENCE

March
2010 to
current

MEMStaff, Business Development

- Networking and development projects seeking to assist companies in the MEMS industry that have unmet staffing requirements

2005-
March
2010

SmallTech Consulting, LLC, Founding member

- Business marketing and development for projects in the micro and nanotechnology field
- Principal contributor to client projects focused on strategy, product development, and market evaluation
 - Identification of technical and business hurdles related to applications to determine competitive landscape, technical feasibility, necessary skill sets and resources, and possible roadmap to success
 - Development of recommendations of how to efficiently and economically approach product development
 - Providing venture capital with guidance and technical due diligence for investment opportunities
 - Evaluation of sensors for specific medical applications
 - Review of relevant patents and research programs with an eye to identify opportunities which leverage client's core strengths and fit within their business goals and objectives
 - Synthesis of results to crisp business recommendations

(part time
contractor)

August
2007 –
October
2009

Silicon Microstructures (SMI), division of ELMOS Semiconductor Group AG **Director of Product Engineering**, Reporting directly to CEO

- Directed and mentored a multidisciplinary team of Product Engineers and Program Managers for high volume, high reliability production pressure sensors for automotive, commercial electronics, and medical applications
- Developed and communicated product roadmap and engineering mission to align efforts and achieve company goals
- Executed company strategy to be low pressure and harsh environment sensor market leader by managing cross functional project plans and product development
- Identified and monitored key performance indicators (KPI) to direct change in engineering, operations, and sales
- Key communication link between Sales, Quality, Production, Process Engineering, Marketing, and other departments
- Developed new procedures within the Engineering and Operations departments with the focus on streamlining processes to increase efficiency and productivity
- Managed business development efforts (role unfilled at SMI), leading new product introduction (NPI), product definition, competitive analysis, and strategic partnerships
- Responsible for implementing continuous product improvement, cost reduction, and ISO 9001/ TS 16949 and GSM/QSR/ISO 13485 quality compliance for on-site fabrication facility and global contract manufacturers
- Managed the life cycle of new products from development into high volume production while enforcing strict design controls based on the advanced product quality planning (APQP); this includes budgeting, project planning, qualification planning, vendor audits, control plans, failure mode and effects analysis (FMEA's), safe launch plans, production ramp up, and customer interaction
- Defined reliability and qualification needs for new products and for product changes to ensure products met specification
- Monitoring industry trends to determine new product opportunities, industry growth plans, and business threats
- Provided bimonthly reports for ELMOS Board of Directors

Program Manager (Previously)

- Served as main technical interface for key customers for all their ongoing programs
- Acted as Supplier Manager for Asian manufacturing vendors because the supplier manager position at SMI was unfilled
- Set realistic objectives, milestones, timing, and costs for company's key products

- 2004-2007 **Foothill-De Anza College District, Instructor and Nanotechnology Program Developer:**
- Instructor of Introduction to Nanotechnology (ENGR 76/Nano 51)
 - Developed nanotechnology course content and nanotechnology program strategy
 - Developed topic map of semiconductors, nanoelectronics, nanofabrication, MEMS, and nanodevices
 - Conducted industry survey to gain insight to necessary skill sets, training needs, pain points, and hiring trends in the nanotechnology field
- 2004-2007 **Independent Contractor, Clients included:**
- A M Fitzgerald: Design contributor on strain sensor for dehydration application
- Identified and defined key design parameters, developed the fabrication process, simulated the fabrication process using Suprem software, and identified vendors to implement the design
- GluQuest: Product engineering and vendor sourcing for devices start up aimed at diabetic applications
- MentorNet, Acting Director of Partnerships
- Built mutually beneficial partnerships within the technology sector to further MentorNet's mission
 - Created and communicated a value proposition for current and potential donors to support MentorNet's programs
 - Worked closely with executive management of sponsoring companies to ensure MentorNet's programs meet their needs
- 2002-2004 **Choksi Family Expansion Management (maternity leave)**
- August 2000 to June 2002 **C Speed Corporation, an all-optical semiconductor switch start-up**
- Multiple Start-up Program Management and Leadership Roles
- Evaluated business opportunities and key partner relationships to better position organization for effective product launch
 - Created and executed plan for product development and launch
 - Produced crucial components *ahead* of schedule by leveraging effective people management skills
 - Identified, qualified, and collaborated with vendors to transfer process efficiently to their facilities
 - Facilitated communication with development team, sales, marketing, and customers on detail issue resolution
 - Identified vulnerable contingencies, and alerted senior management of issues that need their attention and input
- March 2000 to August 2000 **Analatom Incorporated, a microsensor development company focused on Structural Health Monitoring**
- Director of Business Development and Principal Contributor
- Directed business development including writing the business plan, pricing and cost analysis, pursuing customers, creating the budget, and analyzing potential markets
 - Principal investigator of MEMS sensors for corrosion measurement
 - Responsible for presentations to the Board of Directors and potential investor pitches
- 1998-2000 **Stanford University, Masters Degree, Electrical Engineering**
- Emphasis on semiconductor fabrication and devices
- June 1997 to Dec. 1997 **American Management Systems, Information Technology Consulting**
- Project Manager of quality control team in Telecom Division:
- Fully responsible for planning, execution, issue resolution, and daily team management of 60+ employee team
 - Developed a project plan to ensure the software team is aligned to meet client objectives
 - Interfaced with client to ensure progress and satisfaction of contract requirements
 - Continually strived to improve project efficiency and/or assist client
- 1995-1997 **McKinsey & Company, Strategic Management Consulting Firm**
- Business Analyst
- Applied fact based analytical problem solving and management skills to business planning for Fortune 500 companies
 - Analyzed price/benefit advantages against competition to create a value based price model
 - Developed post merger company integration plan to assure successful transition and maximize synergies
 - Developed board presentations for new CEO of Fortune 500 company, aiding with analysis of business health and prioritizing initiatives to maximize shareholder value as new CEO
 - Performed in depth data analysis to determine trends and risks and advise on key business decisions

PUBLICATIONS, PRESENTATIONS, and LEADERSHIP

- 2010 **SmallTimes** contributing columnist
<http://tinyurl.com/mirasol>
Title: Qualcomm's approach to displays
Abstract: LCD displays are prevalent in today's handheld devices, but their poor power efficiency and readability in bright light give incentive to uncover alternative approaches. Qualcomm senior engineer Rashmi Rao shared the company's MEMS-based approach to displays at the IEEE Bay Area Nanotechnology Council meeting on March 16, 2010.
- <http://tinyurl.com/CeNSE>
Title: "HP: Making distributed sensing a reality"
Abstract: At an IEEE Bay Area Nanotechnology meeting on February 16, Peter Hartwell revealed new efforts at Hewlett Packard that could change the game for distributed sensor networks (aka "smart dust") and how they will impact human interaction, just as the Internet revolution did.
- <http://tinyurl.com/microfluidics>
Title: "Microfluidics: Practical advice and predictions"
Abstract: Historically, the microfluidics industry has been challenged to achieve a strong return on investment. With the exception of inkjet printing, a key killer application has yet to be identified. This leaves many wondering whether the field has true potential or whether reality is masked in hype. Dr. Holger Becker, co-founder and CSO of microfluidic ChipShop GmbH, shared insights and perspective gained from his nearly 20 years in the industry with the Bay Area MEMS Journal Club on January 28, 2010.
- 2010 IEEE San Francisco Bay Area Nanotechnology Council Executive Committee member
Session Chair for 6th Annual IEEE Nanotechnology Symposium
- July 2009 Invited speaker at **Semicon West 2009**
Session: (TechXPOT) Interfacing with the Human Body: Requirements for Biomedical, Health, and Fitness
Title: "MEMS Based Pressure Sensors: Sensing Pressure in Inner Space"
Abstract: MEMS based pressure sensing is an established, reliable and proven sensing means for straightforward medical device applications, such as respiration and ventilation. As MEMS pressure die and packaging technologies evolve, along with surgical and bio-medical advances, the ability to sense pressures inside the body, at the pressure source, opens up tremendous opportunities for medical advancement. Source point pressure measurement is now possible for many areas within the body, including blood (arterial) sensing, spinal fluid, cranial and spinal column / disc pressure. Limited only by the creativity, imagination and talents of the minds involved, future collaborations now have a dynamic launch point from which to explore the possibilities.
- January 2007 Invited speaker at **Bay Area MEMS Journal Club**
Title: "MEMS/NEMS Technology for Medical Applications"
Abstract: The use of MEMS/NEMS technology in medical applications is a growing area with immense commercial promise. Increasing demand for improved healthcare at reduced cost, accentuated by the needs of an aging population, makes development of micro-scale and nano-scale biomedical technologies an attractive opportunity. Some opportunities for small-scale technologies in medical applications will be outlined, including a brief overview of MEMS and NEMS in medical applications, a look at MEMS/microfluidics opportunities in dialysis, and a perspective on materials characterization and failure analysis in medical and bioanalytical devices.
- 2007 IEEE San Francisco Bay Area Nanotechnology Council Executive Committee member,
Symposium Co-Chair: **Creating a Sustainable Environment**: Invited speakers included Nobel Laureate Arno Penzias
- August 2006 Feature in **MEMS Investor Journal**
Title: "Biomedical applications for MEMS and microfabrication" (Aug 10, 2006)
Note: The **MEMS and Nanotechnology Clearinghouse** also linked to this feature as its lead story (Aug 10, 2006).
- 2006 IEEE San Francisco Bay Area Nanotechnology Council Executive Committee member, Treasurer
- 2005 IEEE San Francisco Bay Area Nanotechnology Council Executive Committee member
- Nov/Dec 1999 First author: **Journal of Vacuum Science and Technology**
Title: "Maskless Extreme Ultraviolet Lithography," (Nov./Dec. 1999) page 3047