Lakshmikanth K. S.

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Summary

Over 18 years of experience in New Product Design & Development of Semiconductor, Medical & Electro-Mechanical products from concept through manufacturing. Result driven and research oriented professionally accomplished in design & development of high-performance products under regulated environment. Specialized in Semiconductor Physical Vapor Deposition Technologies for BEOL.

Work Experience

- Working as Senior Technical Manager in Metal Deposition Product at Applied Materials, Bangalore from Dec 2016 till date.
- Worked as Associate Professor in Department of Mechanical Engineering at The National Institute of Engineering, Mysore, Karnataka, India from Feb 2014 to Dec 2016.
- Worked as Manager (Mechanical) at Skanray Technologies, Mysore from Jan 2013 to Feb 2014.
- Worked as Senior Technical Specialist at Philips Innovation Campus, Bangalore from Aug 2010 to Jan 2013.
- Worked as Technical Consultant, Design in R & D team in Schneider-Electric Bangalore from Aug 2009 to Aug 2010.
- Worked as Mechanical Engineer in iRobot India Pvt. Ltd., Mysore, India from March 2008 to July 2009.
- Worked as Senior Design engineer in WeP Peripherals Ltd. Mysore, India (formerly known as Wipro-e-Peripherals Ltd) from Aug.2005 to Feb. 2008.

Patent

1. Transfer apparatus and substrate-supporting member - US2022336248 A1
2. An electrostatic chuck having a heating and chucking capabilities - TW202224085 A
3. Transfer chamber with integrated substrate pre-process chamber - TW202207347 A
4. High temperature and vacuum isolation processing mini environments - TW202147501 A
5. Substrate transfer devices - WO2022051372 A1
6. Sealing device for a pedestal assembly - US2022076981 A1
7. Selectable-rate bottom purge apparatus and methods - TW202030820 *A*
8. Method and system for tilting an infant-care medical device - BR112015013249 A2

Competencies

- New Product Design (Concept through manufacturing)
- Machine Learning
- Vacuum System Design
- Plasma / RF PVD Chamber Design
- Robotics
- Robust Design & Value Engineering
- Quality function deployment & Six Sigma
- Design for Manufacturing and Assembly
- Static Structural and Thermal analysis
- Plastic, turned, welded & sheet metal parts design
- Vendor interactions & packaging design
- Optical System Design
- Biomedical Engineering
- Computational Fluid Dynamics
- Lead small design team
- IoT Product Design – Sensing Application
- Risk Analysis and Mitigation Planning
- Structural, Thermal, Flow, RF, EM, Plasma Simulation

Key projects life-cycle involvement

Project Description	Planning	Concept Development	System-Level Design	Detail Design	Prototyping and Testing	Production Ramp-up
Maglev based inline PVD System	Yes	Yes	Yes	Under Progress		
ZFFT for EM-VHF PVD System	Yes	Yes	Yes	Yes	Yes	-
Transfer chamber with integrated PVD System	Yes	Yes	Yes	Yes	Yes	-
Design & Development of Smart Wafer (IoT – Sensing)	Yes	Yes	Yes	Yes	Yes	-
Design & Development of Gait Analysis Wearable Device	Yes	Yes	Yes	Yes	Yes	-
Design & Development of Infant Warmer	-	Yes	Yes	Yes	Yes	Yes
Cost reduction of Robot Wheel Bushing using DMAIC	Yes	Yes	Yes	Yes	Yes	Yes
Design & Development of Dot-Matrix-Pinter	Yes	Yes	Yes	Yes	Yes	Yes
Design and Development of Hotel Card Switch	-	Yes	Yes	Yes	Yes	-
Optimization of Wall Follow Sensor	-	Yes	Yes	Yes	Yes	-
Design and Development of C-Arm	-	-	Yes	Yes	Yes	Yes

Education

Ph.D – Part time (Under progress-2023) @ The National Institute of Engineering, Mysore, Karnataka
Asthma Drug Delivery Quantification & Decision Support System under Dr. N.V. Raghavendra & Dr. B.K. Sridhara

M.Tech - Product Design & Manufacturing @ The National Institute of Engineering, Mysore, Karnataka
Graduated – 2005 : Application of Conjoint Analysis in New Product Development in WeP

B.E - Mechanical Engineering @ Ballari Institute of Technology & Management, Bellary 583 104.
Graduated – 2002 : Servo Valve Test Rig in Jindal Vijaynagar Steels Ltd.

Achievements/Certificates

1. Successfully completed the training on **“Optical System Design & Illumination Analysis Course (TracePro & DiaLUX)”** at Bangalore, Karnataka
2. Successfully completed the training program on “**Overview of Regulatory Requirements – IEC / EN 60601-1 2nd edition & 3rd edition requirements & testing’s**” at Philips Bangalore, Karnataka
3. Attended **Six Sigma Green Belt (DFSS)** at Philips, Bangalore, Karnataka
4. Certified **Six Sigma Green Belt (DMAIC)** from iRobot India Pvt Ltd, Mysore, Karnataka
5. Successfully completed proficiency course on **“Introduction to MEMS and Applications” a**t Indian Institute of Science, Bangalore, Karnataka

Personal Information

Date of Birth: 25th Feb 1980
Present Address: #313, Nimisha Enclave, 6th Block, BEL Layout, Vidyaranyapura, Bangalore
Permanent Address: #4479, “Sadguru Sadana”, 4th Stage, 2nd Phase, Vijayanagara, Mysore
Linguistic Proficiency: English, Kannada, Hindi, Telugu
Software Skills: UG-NX, Teamcenter, OpenFOAM, ANSYS, AEDT-HFSS, FEMM, JMP, Macroflow, WEKA, Trace Pro, Elmer, Python, Arduino, Orange-Data Mining, Ubuntu, Creo, TensorFlow, Keras
Hobbies: Cycling, Reading, Teaching, Listening to Music

Date: 25 Dec 2022