

Abhijit Seth

Product Design & Development Engineer
Tata Consultancy Services
Client: DePuy Synthes
Kolkata

Phone No.: +91-7044947435

Email Id.: abhijitseth1996@gmail.com

LinkedIn: <https://www.linkedin.com/in/abhijit-seth-69a557200>

Summary of Qualifications

- 4.5 years of experience in Design and Development of Medical Devices.
- 4 years of experience in Design and Development (Pre-charter to Design Transfer) of Hip Arthroplasty Implants and Instruments for Primary and Revision surgery.
- 2 years of experience in Design for Additive Manufacturing and Reverse Engineering.
- Experience in Quality Management system for Medical Devices.
- Strong team work, decision-making skills with leadership ability and communication skills.
- Experienced in delivery management and coordinating with different stakeholders.

Technical Skills

Concept Generation, Selection and Feasibility analysis	QMS as per ISO 13485 and EUMDR (2017/745)	Geometric Dimensioning and Tolerancing - ASME Y14.5M 1994/2009
CAD- Siemens NX, Onespace	DHF Authoring	Tolerance Stack-up/DVW
Design for Functional Prototyping	-Requirements Management	Change Management (Windchill)
Confidence and Functional Testing	-Risk Management (ISO 14971)	Bone segmentation in Mimics
DFM	-Design V&V	Ultimaker S5
DXT	-Useability Experience	FlashForge Guider II
XRT	TTM (Time To Market) approach	Carl Zeiss Comet 5M (Collin3D, GOM)

Professional Experiences

Tata Consultancy Services

December 2018 - Present

Hip R&D – Tray Design and Development		May 2023 to Present
Responsibilities & Assignments	Team Lead and Product Development Engineer, responsible for Redesign of Cases and Trays. <ul style="list-style-type: none">• Derive Design Inputs from complains and update DHF documentation• Coordination with manufacturer for Concept and generation and finalization• Driving Modelling and Drafting of concepts generated as per company guidelines.• Formulating Acceptance Criteria• Worst-case/Tolerance stack-up• Drop and Transit Test• PLM activities using Windchill	
Achievements	Promotion	

Hip R&D – Femoral Implant development		January 2021 to April 2023
Responsibilities & Assignments	Team Lead and Product Development Engineer, was responsible for driving the development of Femoral Implants and Surgical instruments. <ul style="list-style-type: none">• Working with Marketing Team and design surgeon for requirement gathering	

	<ul style="list-style-type: none"> • Pre-Charter activities including concept generation, selection, Prototyping, confidence testing protocol writing. • Concept refinement • DHF documentation including RTM, DFMEA, Use Specification, Task Use and Error Analysis, Risk Management Report, Design V&V protocols and Reports, Calculation Reports, Design Rationale, Gap analysis, Associative Product Review. • Guiding Design Team in Modelling, Drafting and GD&T. • DFM discussion with supplier • Working with different cross-functional team (RA, FEA, IDHF, Bioengineers, Design Quality) for concept and requirement refinement.
Achievements	<ul style="list-style-type: none"> • Successful Cadaver and sawbone lab with positive feedback in first go. • Received best Delivery Management Award in TCS medical devices vertical, Start of the month and quarter for Management of HIP R&D team. • TCS Gems from Client nomination for successful completion and delivery of Phase-1 on time and cost.

Hip R&D – Acetabular component development		June 2019 to December 2020
Responsibilities & Assignments	Development Engineer, was responsible for design related activities of Femoral Acetabular Implant and Instruments and support product development activities as well. <ul style="list-style-type: none"> • Modelling and Drafting of concepts generated as per company guidelines. • GD&T application as per ASME Y14.5 2009 • Tolerance stack-up • XRT, DXT and 3D DXT • Lifecycle Testing protocol and report writing • Design Calculations • PLM activities using Teamcenter 	
Achievements	Successful completion of all the deliverable with high quality within timeline	

Designing for Additive Manufacturing- Tooling & Fixturing Projects (MDD)		June 2019 to December 2019
Responsibilities & Assignments	Design Engineer, was responsible for making modifications in legacy devices as per Design for Additive Manufacturing.	
Achievements	Successfully customized design of about 4 products for 3D Printing	

Shoulder NPD- CAD & Print, Verification and Validation		February 2019 to May 2019
Responsibilities & Assignments	Design Engineer, was responsible for CAD Modelling and drafting in NX and tolerance stack-up	

Education

Bachelor of Technology in Mechanical Engineering (2014-2018)

Maulana Abul Kalam Azad University of Technology (West Bengal University of Technology)