

## Details of Recruitment Areas of Samsung Electronics Global Tech. Center

Technical Area	Application Area	
<b>Manufacturing Process Technology</b>	<b>Metal</b>	Machining Process Planning, CAM, Cutting Tool Design, Precision Machining, Cutting Mechanism Simulation, Metal Surface Patterning, Metal Surface Finishing (Coating, Etching, Plating, etc), Anodizing
	<b>Glass Processing/Molding</b>	Glass Laser Processing, 3D Thermoforming, Large-area Molding, Glass Powder Molding, Glass Tempering , Development of Glass Replacing Material, CAE Analysis & Test, Property Measurement, Defect Inspection, Strength Test
	<b>Part Processing/Molding Technology</b>	Precision Machining Technique(CNC, Laser Processing, Hard-slicing Material Processing), Metal Molding Tech. (Press, Deep Drawing, Die-Casting), Injection Molding Tech. (Low pressure Molding, Metal Powder Injection)
	<b>Functional Material &amp; New molding method</b>	Functional Materials, Manufacturing Process/Method Development of Ultra-precision Composite Parts (Composite materials such as CFRP)
	<b>Laser / Optics</b>	High-functional Optical Design & Metal Mold Design/Processing/Test/Mass Production tech., Development/Realization Tech of Lighting with Differentiated Design.
<b>Core Technology</b>	<b>Interconnection &amp; Packaging Technology</b>	High Density Stacking for Slim/Wearable Products / Design Tech., Micro Joining to Secure Manufacturing Competitiveness of Products & Parts , Material Analysis/Test to Secure the Quality of Materials & Parts, Reliability Test-Design of Mobile Products
	<b>Mechanical Simulation Design</b>	High Speed Signal Design for Electromagnetic Wave/GHz High-Speed Signal Transmission, Product ESD Analysis/Design, Manufacturing EOS/ESD Measurement & Analysis, Low Power Analysis/Design for Heat Reduction & Increase of the Usage, Sensor Application Circuit, Actuator, Haptic Display Design
	<b>Electrical Simulation Design</b>	Structure Optimization Design/Low Vibration Design, User-oriented Design(Ergonomics-based PUI Design, Sound Quality Improving Design), Optimal Process Design (Processing Analysis/Optimization Design Tech., Nondestructive Measurement Tech., Reverse Engineering Design), Heat Transfer/Flow Optimization Tech.
	<b>CMF(Color, Material, Finishing)</b>	Material/Processing /Design Tech. for Realizing the Color, Special Material Application/Material Analysis Tech., Surface Treatment Tech.
<b>Robot &amp; Automation Technology</b>	<b>Robotics</b>	Precision/Dual Arm Manipulation, Cooperative Control, Grasping, Humanoid/Navigation, Redundancy Resolution
	<b>Motion Planning / Control</b>	Task/Path Planning, Failure Recovery, Force/Impedance Control, Semantic Mapping
	<b>Machine Learning(S/W)</b>	Modeling, Optimization, Supervised/Unsupervised/Deep Learning, Scene Understanding, Reinforcement Learning, Robotic OS(Operating System), Middle Ware, Real-time Control(Linux, Windows)
	<b>Machine Vision</b>	Object Recognition, 3D Vision, Image Analysis, Defect Detection
	<b>Mechanism</b>	Mechanism Kinematics, Dynamics, Design, Analysis, Synthesis
	<b>Signal Processing</b>	Precision Analog Circuit, Digital Signal Processing, Adaptive Filters, Information Feature Extraction from Signal, Noise/Vibration Test/Analysis, Sound Quality Functions, Fault Detection with Vibration/Sound Signal.
<b>Manufacturing System &amp; S/W Technology</b>	<b>Big Data</b>	Equip.'s Big Data (text, signal, video) Processing/Analysis, Analysis of Correlation btw Manufacturing Process & Quality of Products, Time series analysis and Data Visualization, Multi-linear subspace learning, Massively Parallel-Processing Databases, Distributed file systems, distributed databases, cloud based infrastructure (applications, storage and computing resources)
	<b>Digital Manufacturing</b>	Equip.'s Big Data (text, signal, video) Processing/Analysis, Analysis of Correlation btw Manufacturing Process & Quality of Products, Factory Layout & Logistics Simulation Test/Optimization, Automated Equip. Simulation/Test, Ergonomics-based Work/Productivity Test, Optimization
	<b>Process Monitoring &amp; Control S/W</b>	Development of Processing/Equip. Engineering & Optimal S/W, Development of Measuring/Test/Control Automation S/W , Optimal Data Communication Design btw Different Model Equip.s – Computers , Micro-sensor Design & IoT/M2M Firmware Development
	<b>Optimal Design &amp; Test of S/W</b>	S/W Product Line Engineering & S/W Platform Development, S/W Architecture Analysis & Test, S/W Reengineering/Refactoring & S/W Quality Optimization
	<b>Manufacturing Info. System</b>	Cloud Computing-based User Experience Design, Optimal Design & Tuning of Massive Database, Optimal Logistics Control (Scheduling & Dispatching)