Details of Recruitment Areas of Samsung Electronics Global Tech. Center

Technical Area	Application Area	
Manufacturing Process Technology	**Metal**	Machining Process Planning, CAM, Cutting Tool Design, Precision Machining, Cutting Mechanism Simulation, Metal Surface Patterning, Metal Surface Finishing (Coating, Etching, Plating, etc), Anodizing
	Glass Processing/Molding	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
	Part Processing/Molding Technology	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)
	Functional Material & New molding method	Functional Materials, Manufacturing Process/Method Development of Ultra-precision Composite Parts (Composite materials such as CFRP)
	Laser / Optics	High-functional Optical Design & Metal Mold Design/Processing/Test/Mass Production tech., Development/Realization Tech of Lighting with Differentiated Design.
Core Technology	**Interconnection & Packaging Technology**	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
	Mechanical Simulation Design	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
	Electrical Simulation Design	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.
	CMF(Color, Material, Finishing)	Material/Processing /Design Tech. for Realizing the Color, Special Material Application/Material Analysis Tech., Surface Treatment Tech.
Robot & Automation Technology	**Robotics**	Precision/Dual Arm Manipulation, Cooperative Control, Grasping, Humanoid/Navigation, Redundancy Resolution
	Motion Planning / Control	Task/Path Planning, Failure Recovery, Force/Impedance Control, Semantic Mapping
	Machine Learning(S/W)	Modeling, Optimization, Supervised/Unsupervised/Deep Learning, Scene Understanding, Reinforcement Learning, Robotic OS(Operating System), Middle Ware, Real-time Control(Linux, Windows)
	Machine Vision	Object Recognition, 3D Vision, Image Analysis, Defect Detection
	Mechanism	Mechanism Kinematics, Dynamics, Design, Analysis, Synthesis
	Signal Processing	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.
Manufacturing System & S/W Technology	**Digital Manufacturing**	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
	Process Monitoring & Control S/W	Development of Processing/Equip. Engineering & Optimal S/W, Development of Measuring/Test/Control Automation S/W , Optimal Data Communication Design btw Different Model Equips – Computers , Micro-sensor Design & IoT/M2M Firmware Development
	Optimal Design & Test of S/W	S/W Product Line Engineering & S/W Platform Development, S/W Architecture Analysis & Test, S/W Reengineering/Refactoring & S/W Quality Optimization
	Manufacturing Info. System	Cloud Computing-based User Experience Design, Optimal Design & Tuning of Massive Database, Optimal Logistics Control (Scheduling & Dispatching)