

# LG Electronics Recruiting



## LG전자 해외 우수 R&D 인재 채용

- 모집기간 2015년 9월 3일(목) ~ 2015년 9월 30일(수)
- 지원방법 (On-line 지원)
  - http://careers.lg.com → Apply LG → 회원가입
  - 공고명 [LG전자] 2015 해외 우수 R&D 채용(신인/경력) → 지원서 작성

### ● 지원분야

조직구분	모집분야	관련전공
Home Entertainment	<ul style="list-style-type: none"> <li>SW Platform                             <ul style="list-style-type: none"> <li>- webOS Core / Web technology / Security / Media Streaming / SDK / BSP / Linux Kernel / Compiler</li> </ul> </li> <li>SW Architecture                             <ul style="list-style-type: none"> <li>- Data Mining &amp; Analysis - Data collection / ETL / Establishment of Dashboard / Design &amp; Establishment of Data Service Platform</li> </ul> </li> <li>UX                             <ul style="list-style-type: none"> <li>- Finger Gesture / Camera Framework / FullBody technology / Facial Recognition / Camera / Natural Language Processing / Long Distance Speech Recognition / Speech Recognition / STT&amp;TTS</li> <li>- UX Design / UX Prototyping</li> </ul> </li> <li>SoC                             <ul style="list-style-type: none"> <li>- Planning &amp; Establishment of Mid / Long-term Strategy for Smart TV SoC</li> <li>- Mid/Long-term HW Requirements for Smart TV</li> <li>- Analysis of Latest SoC Technology &amp; Establishment of Differentiation Strategy by Application of SoC</li> <li>- Analysis of SoC Architecture &amp; Establishment of Improvement Plan</li> <li>- User Scenario-Optimized SoC Architecture &amp; Ideation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Electrical / Electronic Engineering</li> <li>Computer Science</li> <li>Semiconductor</li> </ul>
Mobile Communications	<ul style="list-style-type: none"> <li>SW                             <ul style="list-style-type: none"> <li>- Android &amp; OS : Linux Kernel / Device Driver / BSP</li> <li>- Multimedia : Audio / Camera / Video</li> <li>- Application : Mobile App.</li> <li>- Protocol(Modem) : LTE-A, Architecture / Android Platform / Open Source SW Platform</li> <li>- Cloud Server / Application / Web Programming / Machine Learning / Data Mining &amp; Analysis / Context Awareness M2M / Artificial Intelligence</li> <li>- Robot SW Platform / System SW / Vision Analysis / Control / Power Saving &amp; Battery Management (Fast Charging)</li> <li>- Energy Management / OS/Kernel / Web Platform / SDK / System SW / Application SW</li> <li>- Web Technology : Web Platform / Web OS / Web Application</li> <li>- ETC : Computer Vision / Voice Recognition / Sensor Application</li> </ul> </li> <li>UX : User Experience Research(FGD, FUI) / UX/UI Interaction Design &amp; User Centered Design / Human Behavior Centered UX Design</li> <li>HW : Wireless Communication Technology(RF / Antenna Design) / System Design - Circuit Design &amp; Optimization</li> <li>Mechanics : Structural Design / Exterior(Material/New Material/Surface Treatment/Die Casting)</li> </ul>	<ul style="list-style-type: none"> <li>Electrical / Electronic Engineering</li> <li>Material Engineering</li> <li>Computer Science</li> <li>HCI</li> </ul>
Home Appliance & Air Solution	<ul style="list-style-type: none"> <li>Appliance R&amp;D                             <ul style="list-style-type: none"> <li>- Structure Design / Refrigerating Cycle and Thermal Fluid System Development / Dynamic Analysis / Noise and Vibration</li> <li>- Freshness &amp; Hygiene / Thermoelectric Module / Insulation (Urethane foaming, Vacuum insulation)</li> </ul> </li> <li>Appliance Control R&amp;D                             <ul style="list-style-type: none"> <li>- Power Electronics(Inverter/Converter) / Wireless Power / Electronic Signal Transceivers(Smart) / Vision Sensor Application</li> </ul> </li> <li>Air Conditioning &amp; Chiller R&amp;D                             <ul style="list-style-type: none"> <li>- Thermal Fluid Analysis / Fan Design / Performance Analysis- Computational Fluid Dynamics(CFD) / Computer Aided Engineering(CAE)</li> <li>- Optimal Design / Structural Design / Noise and Vibration / Sheet Metal Forming</li> <li>- Inverter System Algorithms / Logic Design / Motor / Compressor Design / Smart Sensors / Waste Heat Recovery / z Phase Flow / Heat Transfer / Cooling System</li> </ul> </li> <li>Air Conditioning Control &amp; BMS R&amp;D                             <ul style="list-style-type: none"> <li>- IPMSM Control(Sensor-less Vector Control, Motor Control) / Single Phase / Three Phase PFC Control / Digital Control / Automatic Control / PSIM or Matlab Simulation / Embedded System</li> <li>- Building Management System / Home Management System Control / Network Protocol</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Mechanical Engineering</li> <li>Material Engineering</li> <li>Chemistry Engineering</li> <li>Electrical / Electronic Engineering</li> <li>Computer Engineering</li> <li>Power Electronics</li> <li>Electrical / Electronic Engineering</li> <li>Mechanical Engineering</li> <li>Material Engineering</li> <li>Chemistry</li> <li>Refrigeration / Air conditioning Engineering</li> <li>Electrical / Electronic Engineering</li> <li>Computer Engineering</li> <li>Power Electronics</li> </ul>
	<ul style="list-style-type: none"> <li>Motor                             <ul style="list-style-type: none"> <li>- Motor Design / Motor Cooling / Cooling Circuit Design / Permanent Magnetic AC/DC</li> <li>- Motor Design&amp;Development of mass production</li> <li>- B-ISG : Belt-Integrated Starter and Generator</li> <li>- System Reliability Test : Reliability Verification and Validation / Rotor Dynamic Reliability Design / Analysis / Vibration / Noise</li> <li>- Drive Unit Structural Design &amp; Cooling System Design / Reducer(Decelerator) Design / Thermal Analysis &amp; Evaluation / Structural Design &amp; Analysis</li> </ul> </li> <li>Battery Pack                             <ul style="list-style-type: none"> <li>- Battery Packs for Electrical Vehicles / System Design / Structural Stiffness Design / Safety Design / Cooling System Design / Battery Pack Electric Frame Design</li> </ul> </li> <li>Inverter                             <ul style="list-style-type: none"> <li>- DSP / Micro Application Technology Research</li> <li>- Power Electronic Circuit Design &amp; Control / Inverter Drive System</li> <li>- Motor control Algorithm Development(Sensorless / Sensored Control)</li> </ul> </li> <li>Converter                             <ul style="list-style-type: none"> <li>- Charger Algorithm Development using DSP / Microprocessor</li> <li>- PFC Control for Single-Phase / Three-Phase / AC-DC Converter</li> <li>- High Efficiency Converter Topology / Passive Element Design &amp; Research</li> <li>- Resonant Converter Design</li> </ul> </li> <li>Automotive(Car) Exterior Design                             <ul style="list-style-type: none"> <li>- Related to Design / Test / Analysis / Control</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Electrical / Electronic Engineering</li> <li>Mechanical Engineering</li> <li>Power Electronics</li> <li>Physics</li> </ul>
	<ul style="list-style-type: none"> <li>HVAC System                             <ul style="list-style-type: none"> <li>- Vehicle HVAC(Heating, Ventilation, Air Conditioning) System Research</li> <li>- Automobile Air Conditioner(Refrigerant) Performance Reserch</li> <li>- HEX(Heat Exchanger) / Heat Pump / Fan / Flow Research</li> <li>- HEX(Heat Exchanger) Design / Development of Design Simulation Program for HEX(Heat Exchanger) / Heat Pump Design / Fan &amp; Flow Channel Design</li> </ul> </li> <li>In-Vehicle Infotainment                             <ul style="list-style-type: none"> <li>- BSP / Kernel / Driver / Power Management / HMI / SWDL / LCD / Touch</li> <li>- Protocol / Radio(DAB, RDS, WCDMA, LTE) / Bluetooth / WiFi / Network Services(BL, MDIM) / CAN Communication / BAP Protocol / Diagnostic Framework / Security / Service / Multimedia / Application/Windows C++/C#, Android Java)</li> <li>- MirrorLink / Linux OS / Micom / C / C++ / C# / Low Level coding / Audio DSP Research / Cordless Charging Technology(Wireless Charging) / Wireless Charging Coil Design</li> <li>- EMF/EMC</li> <li>ADAS(Advanced Driver Assistance System) &amp; AVM(Around View Monitoring)                             <ul style="list-style-type: none"> <li>- Display Application Technology Research / Camera and Optical Design Technology / DSP / Micom Application Design / Wireless protocol / RF &amp; RF System Design / Optimal Design</li> <li>- Embedded System Power Management</li> <li>- Machine Vision / Design of Recognition / Learning Algorithm / AP Chip Application Development based on ARM / Radio Tuning / Embedded / HW Development</li> </ul> </li> </ul> </li> <li>Development for Automobile Lamp                             <ul style="list-style-type: none"> <li>- LED Head Lamp / Rear Light Distribution / Optical Design Technology(Experience of SPEOS, CATIA V5)</li> <li>- LDM / ADAS Intelligent Control SW/HW Development / Control Algorithm</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Mechanical Engineering</li> <li>Aerospace Engineering</li> <li>Air conditioning</li> <li>Electrical / Electronic Engineering</li> <li>Computation Engineering</li> <li>Computer Science</li> <li>Electrical / Electronic Engineering</li> <li>Mechanical Engineering</li> <li>Computation Engineering</li> <li>Computer Science</li> </ul>
	<ul style="list-style-type: none"> <li>Material                             <ul style="list-style-type: none"> <li>- Nano Material / QD(Quantum Dot) Material / Barrier Material / Resin(UV, Thermal) / Graphene / Ag Ink(Nano) / Solar Paste / Adhesive Material Organic / Inorganic Hybrid Resin / Optics / Optoelectronics / Digital Circuit Design / Flexible Material / Material Analysis</li> </ul> </li> <li>Process                             <ul style="list-style-type: none"> <li>- Coating / Laminating / Curing(UV, Thermal drying) / Patterning(Printing, Laser, Etching) / Punching / Dispersion / Printing / Sintering / Surface Treatment / Bonding / Vapor Deposition / Water Treatment / Mechanism Design / Anodizing</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Material / Physics / Chemistry / Electrical / Electronic Engineering</li> </ul>
COT	<ul style="list-style-type: none"> <li>Motor / Comp. / Inverter                             <ul style="list-style-type: none"> <li>- Motor Design / Motor Cooling Design / Electro-magnetic Analysis</li> <li>- Rotor Reliability Design / Vibration / Noise Reliability Design</li> <li>- Inverter / Converter Topology Design / Cooling System Design / Thermal Analysis &amp; Structural Analysis</li> <li>- Fan Design / Flow Path Design / Heat Exchanger Design / Radiation Design</li> <li>- Metal Material / Tribology/Electronic Material</li> <li>- Physics / Mathematics</li> </ul> </li> <li>5G Technology Development &amp; Implementation                             <ul style="list-style-type: none"> <li>- 4G / 5G Physical Layer / Wireless Protocol / Network Architecture / Radio Resource Management</li> <li>- Technical Performance Analysis and Verification (Channel Modeling, System-level Experimental Modeling Links)</li> <li>- Implement and Optimize Communications Technology (DSP, FPGA-based Communication Technology Implementation, RF / Antenna Signal Processing)</li> </ul> </li> <li>Mobile Communications Physical Layer Standards                             <ul style="list-style-type: none"> <li>- Communication PHY / MAC / Information Theory (Multiple Antenna, Carrier Aggregation, Resource Allocation, Duplexing, Multiple Access, Relay, Cooperative Communication, HetNet, Small Cell, Licensed Assisted Access, Machine Type Communication, Device-to-Device Communication, Vehicle-to-Everything, Latency Reduction, Channel Modeling, etc.)</li> <li>- Communication Link / System Simulation Capabilities [C/C++, Matlab, HSUPA+, WCDMA, WiMax, EVD0, CDMA2000, GSM]</li> </ul> </li> <li>Mobile Communication Protocol Standardization                             <ul style="list-style-type: none"> <li>- Terminal / Base Station Protocol (MAC, RLC, PDCP, RRC, NAS)</li> <li>- Packet Data Protocol (TCP / IP Stack, Mobile IP, Packet Based Routing, QoS / Security, etc.)</li> <li>- Mobile Communication System Architecture and Service Requirements (EUTRAN, EPC, MME, Gateway, Interworking Function, SDN / NFV, CCN, CDN, etc.)</li> <li>- Mobile Communication Standards and Technologies (LTE-A, LTE, IETF Technologies, Location, Security, etc.)</li> </ul> </li> <li>IoT / M2M Service Platform Technology Development and Standardization                             <ul style="list-style-type: none"> <li>- IoT / M2M Service Platform and API Design (M2M Service Middleware, LBS, Device Management, etc.)</li> <li>- IoT / M2M Application Technologies (Web Services, Semantic, Data Mining, Big Data, etc.)</li> <li>- Communication and Network Theory (Sensor Network, Server-Client, HTTP, IETF Technologies, QoS / Security, etc.)</li> </ul> </li> <li>Next-Generation Wi-Fi Technology Development and Standardization                             <ul style="list-style-type: none"> <li>- Communication Network Based on Theory (Communication System, Detection &amp; Estimation, Modulation and Coding, Signal Processing, Data Communication, TCP / IP, etc.)</li> <li>- Communications PHY / MAC theory (MIMO, Beamforming, OFDMA), Synchronization, Sequence, Resource Allocation, MAC protocol, etc.)</li> <li>- The Communication Link / System Simulation Capabilities [C/C++, Matlab, NS2/3]</li> <li>- Wi-Fi Standard Technical Understanding (802.11a/b/g/n/ac, Wi-Fi Direct, 802.11ad, Wi-Fi Direct, Miracast, Wi-Fi Aware, etc.)</li> <li>- Wi-Fi-Based Applications Service Development (Embedded Linux, Android, WPA Supplicant, Linux Service Driver, C, C++, JAVA)</li> <li>- Next-Generation Wi-Fi Technology Development and Standardization (802.11ax (Next-Generation Wi-Fi), 802.11ay (Next Generation 60GHz), 802.11az (High-Precision Indoor Positioning), Wi-Fi Alliance)</li> </ul> </li> <li>Bluetooth IoT Technologies and Standardization                             <ul style="list-style-type: none"> <li>- Communication Network Based on Theory (Communication System, Detection &amp; Estimation, Modulation and Coding, Signal Processing, Data Communication, TCP/IP, etc.)</li> <li>- Communication PHY / MAC Theory (Modulation, Synchronization, Resource Allocation, MAC protocol, Co-existence etc.)</li> <li>- Communication Link / System Simulation Capabilities [C/C++, Matlab, NS2/3]</li> <li>- Bluetooth Standard Technical Understanding (Bluetooth BR / EDR, Bluetooth Low Energy, Security, Pairing, Application Profile, etc.)</li> <li>- Bluetooth-based Applications Service Development (Embedded Linux, Android, webOS TV, C, C++, JAVA)</li> <li>- Next-Generation Technology Development and Standardization Bluetooth (Long Range, Mesh, Low Energy Audio, Ultra-Precision Indoor Positioning)</li> </ul> </li> <li>Next-Generation Broadcasting Media Standards                             <ul style="list-style-type: none"> <li>- Virtual / Augmented Reality (VR / AR) HMD / HUD / Hologram SW Development</li> <li>- Image Processing, Information Theory, Signal Processing, Computer Vision</li> <li>- Video Compression Standard (MPEG2, H.264 / AVC, HEVC and Expansion Technology) Research</li> <li>- Audio compression standard (MPEG2, AAC, MP3, MPEG-H 3D audio, etc.) Knowledge</li> <li>- Matlab and C/C++ Proficiency Required SIMD / GPU / Multi-Threading RTL Coding of Parallelism Programming</li> <li>- Broadcasting System / Video Compression and Service Development and Standardization : MPEG, ATSC, DVB, DTMB, ISDB-T, DAB, World DMB, DASH, W3C Standards</li> <li>- Next Generation of Broadcast Media AV Channel Coding for Transmission, Transmission Capacity and Waveform, FEC Technique for Improving Reception Performance</li> <li>- Broadcasting, Streaming, Convergence of Standards and Protocols in the IP Networks, Complex extension System</li> <li>- Mobile and Vehicles, Signage and A/V Works Wired/Wireless Protocol and Service : FPGA, Transmit / Receive System Implemented on the DSP System and Digital TV, Broadcast Services in Mobile SW implementation</li> <li>- Ultra-high Resolution and Realistic Leading Media Development and Standardization : HDR (OETF / EOTF modeling), Color Grading, Mastering Techniques, Image Analysis, Tone Mapping</li> <li>- WCG Color Quality Enhancement, Color Volume Mapping, Color Difference Modeling, Color Gamut Design</li> <li>- HFR Video Coding (H.264, HEVC, VP9, etc.) Technology</li> <li>- AR and VR and 3D, AD and Multi Video Processing Standardization</li> <li>- Programming Skills: Matlab, Visual C</li> <li>- Standardization Based Media Player Storage and Protection</li> <li>- BD, SMPTE, DECE (UVI, RVU, SCSA, Global Platform Standards</li> <li>- IP-based Storage and A/V Content and Operations Management, Service Standards</li> <li>- Content Protection, Protection of IP Flow, CAS, DRM Standards</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Mechanical / Physical / Mathematical / Control / Electrical / Electronic Engineering and related majors</li> <li>Electrical / Electronic Engineering</li> <li>Computer Engineering</li> <li>and related majors</li> </ul>
	<ul style="list-style-type: none"> <li>Chip                             <ul style="list-style-type: none"> <li>- Mobile SoC Design / Computer Architecture / Mobile System Solution(BSP, Kernel, Multi Core), Mobile Chip Design / Mobile Verification</li> <li>- Device Modem Chip Protocol SW Development / Device Modem Chip HW Design / Device Modem SoC Development / Device RF Design</li> <li>- Computer Vision Algorithm / Vehicle Semiconductor Design / Computer Architecture or Compiler / Mixed IP Design</li> <li>- Analog Circuit Design / Process Integration / TG/ISP Digital Design / CMOS Image Sensor Test Program</li> <li>- Mobile / Consumer / and Automotive SoC Physical Design / Design Methodology Develop and Design Automation</li> </ul> </li> <li>Intelligence                             <ul style="list-style-type: none"> <li>- Image Processing &amp; Computer Vision / 3D Vision Reconstruction / Robotics</li> <li>- Deep Learning (Vision, Speech, Bio Data, etc.), Machine Learning / AI (Artificial Intelligence) / Ontology / Deep Q&amp;A / Topic Modeling</li> <li>- Context Awareness / VR / AR</li> <li>- Data Mining &amp; Analysis / Human Computer Interaction / Speech &amp; Audio Processing</li> <li>- Medical Device / Wearable Device (Human Small Hand-Held Device, Mounting Device), Medical Ultrasound Technology Development</li> <li>- Bio Signal Processing / Verification / Embedded System Design / Integration / Optimization / Verification</li> <li>- Human Machine Interface (Human Computer Interaction, 3D Graphics, Image Processing &amp; Computer Vision)</li> <li>- Speech &amp; Audio Processing</li> <li>- Learning-based Image Recognition / Processing / Clustering / Semantic Understanding / Computer Vision</li> <li>- Virtual / Augmented Reality (VR / AR) HMD / HUD / Hologram SW Development</li> <li>- Robot / Drone Intelligence (Voice, Vision, HRI, Mechanism / Circuit / Control R&amp;D (Applications: Service Robots, Industrial Robots, Drones, Unmanned Car)</li> <li>- Intelligence &amp; Service (Data Mining &amp; Analysis, Context Awareness, Natural Language Understanding, Machine Learning, Artificial Intelligence, Service Platform)</li> </ul> </li> <li>Autonomous Vehicle Driving                             <ul style="list-style-type: none"> <li>- Mobile Robot or UGV (Unmanned Ground Vehicle) Research</li> <li>- SLAM Algorithm Development / Application</li> <li>- Optimized Path Planning / Tracking Algorithm Research</li> <li>- Efficient C/C++ / Matlab / LabView Programming</li> </ul> </li> <li>Autonomous Vehicle Radar / LIDAR Technology                             <ul style="list-style-type: none"> <li>- Autonomous Radar System Radar and Algorithm Development</li> <li>- Radar FMCW Design / Detection Algorithm / Direction of Arrival / Synthetic Aperture Radar / Tracking Algorithm / etc.</li> <li>- Pedestrian Detection / Radar Test &amp; Validation</li> <li>- Car Radar Antenna Design: Patch Antenna, Phase Array Antenna</li> <li>- Development Car Radar Embedded SW                                     <ul style="list-style-type: none"> <li>: SW Architecture Research, SW Framework Development, Embedded System SW Design Optimization</li> <li>: Micom / DSP Processor, Embedded System Peripheral Interface</li> <li>: SW Development Process &amp; Test</li> </ul> </li> <li>- Car LIDAR System and Algorithm Research</li> <li>- TDF Signal Processing, FMCW Design, Detection Algorithm, Direction of Arrival, Classification, Tracking Algorithm, etc.</li> <li>: LIDAR Test &amp; Validation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Electrical / Semiconductor / Electronic Engineering</li> <li>Computer Engineering</li> <li>and related majors</li> <li>Material [metal,new material] / Physics / Chemistry/polymer / Computer / Mechanical Engineering</li> <li>Electrical / Electronic Engineering</li> </ul>
	<ul style="list-style-type: none"> <li>Intelligence                             <ul style="list-style-type: none"> <li>- Image Processing &amp; Computer Vision / 3D Vision Reconstruction / Robotics</li> <li>- Deep Learning (Vision, Speech, Bio Data, etc.), Machine Learning / AI (Artificial Intelligence) / Ontology / Deep Q&amp;A / Topic Modeling</li> <li>- Context Awareness / VR / AR</li> <li>- Data Mining &amp; Analysis / Human Computer Interaction / Speech &amp; Audio Processing</li> <li>- Medical Device / Wearable Device (Human Small Hand-Held Device, Mounting Device), Medical Ultrasound Technology Development</li> <li>- Bio Signal Processing / Verification / Embedded System Design / Integration / Optimization / Verification</li> <li>- Human Machine Interface (Human Computer Interaction, 3D Graphics, Image Processing &amp; Computer Vision)</li> <li>- Speech &amp; Audio Processing</li> <li>- Learning-based Image Recognition / Processing / Clustering / Semantic Understanding / Computer Vision</li> <li>- Virtual / Augmented Reality (VR / AR) HMD / HUD / Hologram SW Development</li> <li>- Robot / Drone Intelligence (Voice, Vision, HRI, Mechanism / Circuit / Control R&amp;D (Applications: Service Robots, Industrial Robots, Drones, Unmanned Car)</li> <li>- Intelligence &amp; Service (Data Mining &amp; Analysis, Context Awareness, Natural Language Understanding, Machine Learning, Artificial Intelligence, Service Platform)</li> </ul> </li> <li>Autonomous Vehicle Driving                             <ul style="list-style-type: none"> <li>- Mobile Robot or UGV (Unmanned Ground Vehicle) Research</li> <li>- SLAM Algorithm Development / Application</li> <li>- Optimized Path Planning / Tracking Algorithm Research</li> <li>- Efficient C/C++ / Matlab / LabView Programming</li> </ul> </li> <li>Autonomous Vehicle Radar / LIDAR Technology                             <ul style="list-style-type: none"> <li>- Autonomous Radar System Radar and Algorithm Development</li> <li>- Radar FMCW Design / Detection Algorithm / Direction of Arrival / Synthetic Aperture Radar / Tracking Algorithm / etc.</li> <li>- Pedestrian Detection / Radar Test &amp; Validation</li> <li>- Car Radar Antenna Design: Patch Antenna, Phase Array Antenna</li> <li>- Development Car Radar Embedded SW                                     <ul style="list-style-type: none"> <li>: SW Architecture Research, SW Framework Development, Embedded System SW Design Optimization</li> <li>: Micom / DSP Processor, Embedded System Peripheral Interface</li> <li>: SW Development Process &amp; Test</li> </ul> </li> <li>- Car LIDAR System and Algorithm Research</li> <li>- TDF Signal Processing, FMCW Design, Detection Algorithm, Direction of Arrival, Classification, Tracking Algorithm, etc.</li> <li>: LIDAR Test &amp; Validation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Electronic / HCI / Computer / Robotics / Automotive Engineering and related majors</li> </ul>
	<ul style="list-style-type: none"> <li>SW Platform                             <ul style="list-style-type: none"> <li>- OS Kernel / BSP (Memory Management, File System, Open Source Contribution, Security)</li> <li>- Middleware (Graphics, Multimedia, Network &amp; Communication)</li> <li>- Web Tech. / Web Engine, Browser, Web App. Framework, W3C, HTML5, Webkit)</li> <li>- SDK / Technical Evangelism (IDE, Emulator, Evangelism, Documentation)</li> <li>- SW Engineering (SW Training, SW Infra, SW Architecture, SW Process &amp; Tool, SW Test)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Computer / SW Engineering and related majors</li> </ul>
Innovation Business Center	<ul style="list-style-type: none"> <li>Innovative Product Planning &amp; Service Planning                             <ul style="list-style-type: none"> <li>- New Service Planning &amp; Business Development</li> <li>- Prototyping(Deliver innovative, engaging prototypes) / Product Manager / UX Designer / Interaction Designer</li> <li>- Design Thinking</li> </ul> </li> <li>New Business Strategy Development                             <ul style="list-style-type: none"> <li>- Business Modeling &amp; Incubation / Business Feasibility Analysis / Business Planning</li> <li>- Find and develop plan to build strategic partnership with new biz partners</li> <li>- Marketing Intelligence / Marketing Strategy / Product Marketing</li> </ul> </li> <li>Quick Prototyping</li> <li>Life Style Research / Design / UX</li> </ul>	<ul style="list-style-type: none"> <li>Electrical / Electronic Engineering</li> <li>Material Engineering</li> <li>Computer Science</li> <li>HCI / UI</li> </ul>
Smart Business Center	<ul style="list-style-type: none"> <li>IoT (Internet of Things) / Smart Home / Big Data / Service &amp; Contents (Smart TV &amp; Mobile)                             <ul style="list-style-type: none"> <li>- Communication Device</li> <li>- Data Mining &amp; Analysis / Human Computer Interaction</li> <li>- Intellectual Property / Prosecution &amp; Portfolio Management / Analysis / Licensing / Litigation / Strategy</li> <li>- Code Analysis &amp; Refactoring / SW Architecture Evaluation &amp; Design / Agile Methodology</li> <li>- Broadcasting Service &amp; Standardization / Android Platform / Cloud Server / Data Mining &amp; Analysis / Context Awareness / Artificial Intelligence / OS / Kernel / Sensor</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Electrical / Electronic Engineering</li> <li>Telecommunication Engineering / Computation Engineering / Computer Science</li> </ul>
Energy Business Center	<ul style="list-style-type: none"> <li>Solar                             <ul style="list-style-type: none"> <li>- Solar Cell : Device / Silicon Crystal Growth / Metal paste</li> <li>- Solar Module : Module Long Term Reliability / High Reliability Filter(EVA,PET,POE,PE,etc)</li> <li>- Microinverter : Solar MPPT Algorithm / Grid Integration</li> </ul> </li> <li>ESS(Energy Storage System)                             <ul style="list-style-type: none"> <li>- PCS HW Development : AC/DC Simulator, High Efficiency Inverter HW &amp; Control Design / High Efficiency, High Voltage Converter Design &amp; Controller Development</li> <li>- PCS SW Development : PCS Power Control Programming / DSP &amp; Arm Processor Board &amp; SW Design</li> <li>- BMS Development : BMS Algorithm Development, Embedded SW realization &amp; verification</li> <li>- Battery Pack Design : Battery Module, Pack Structure Analysis and Design</li> <li>- Battery Cell estimation : Requiring Estimation Data to develop Battery Management System, Cell Requirement &amp; Specification Creation</li> <li>- EMS Development : ESS Control Programming for Smart Grid, WIN32 application, Embedded C Development, DNP3.0, IEC61850 Communication Programming</li> <li>- Simulator Analysis : EMTDC, PSCAD Tool usage ability, MATLAB, Simulator Modeling through Simulink, OPF Analysis</li> <li>- Mechanic Design &amp; Analysis : PCS Mechanic Design, Heat flow Analysis, Structure vibration Analysis</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Electrical / Electronic Engineering</li> <li>Material Engineering</li> <li>Polymer / Physics</li> <li>Power Electronics / CFD</li> <li>Simulator / Electronic Computer / ICT Material</li> </ul>
	<ul style="list-style-type: none"> <li>Intelligent Sensors                             <ul style="list-style-type: none"> <li>- Materials for Sensors                                     <ul style="list-style-type: none"> <li>: Synthesis, Process of Inorganic Material (Metal Oxide like SnO2, WO3 etc)</li> <li>- CMOS / MEMS Integration Process, CMOS IC Design</li> <li>- HW or SW for Sensor Network</li> </ul> </li> <li>- Gateways (WiFi, BLE, Zigbee, Z-wave), Low Power Communications, Firmware</li> <li>- Power Management IC for Energy Harvesting</li> <li>- Inverter/Converter Circuit Design, MCU Firmware / HW Programming</li> <li>- Android / IOS App and Sensor Integration UI / UX</li> <li>: C++/Embedded Linux/RTOS, SPSS Tool, Firmware(C/C++ etc)/SW/Java, C++/C# etc.)</li> </ul> </li> <li>Materials                             <ul style="list-style-type: none"> <li>- Optical Materials(Optical Coating, Diffuser, Sapphire Glass etc) for High Power Lamps(like Headlamps)</li> <li>- Amorphous Metal for Coating(Ultra Hardness, Low Friction)</li> <li>- Heat Transfer Materials(Nano Composite, Hybrid Metals etc)</li> <li>- Environmental Materials(Hardness Elimination for Water, Deodorization for Air, etc)</li> <li>- Thermoelectric Materials</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Material [metal,new material] / Physics / Chemistry/polymer / Computer / Mechanical Engineering</li> <li>Electrical / Electronic Engineering</li> </ul>
Production engineering Research Institute	<ul style="list-style-type: none"> <li>Printed Electronics Technology                             <ul style="list-style-type: none"> <li>- Automated Electronics Technology / Roll-to-Roll Transferring Technology</li> <li>- Coating / Dispensing / Substrate Processing Technology</li> <li>- Bonding / Laminating Technology / Automation &amp; System Engineering</li> </ul> </li> <li>Process Technology                             <ul style="list-style-type: none"> <li>- Pattern Transfer Technology (Optics, Opto-mechanical Design, Exposure, Ultra-precise Mechanical Design)</li> <li>- Vacuum / Deposition / Plasma Surface Treatment, OLED CVD, High-Vacuum System, Plasma Application/Surface Treatment, OLED Position/Encapsulation)</li> <li>- Laser Application Technology(Laser Processing, Laser Optics - Scanner/Optic Design/Opto-mechanical Design, Control, Image/Vision Processing)</li> <li>- Thermal Process Technology(Thermal/Flow Analysis, Low Heat Treatment, Roll to Roll)</li> <li>- New Manufacturing Processes(ALD/ALD, DSA, NIL, PLD, EHD, Surface Treatment, Roll to Roll)</li> <li>- Device Fabrication(OLED, Semiconductor/FPD, Secondary Battery, Sensor)</li> <li>- New Material Application(Graphene/CNT, Thermoelectric Device)</li> </ul> </li> <li>Inspection &amp; Control Systems                             <ul style="list-style-type: none"> <li>- Machine Vision / Image processing / Pattern recognition / Image optics / 3D measurement</li> <li>- Electrical inspection / Sensor application / Inkjet printing</li> <li>- Wireless measurement / Digital signal inspection / Power control / Embedded system</li> </ul> </li> <li>Production Base Technology                             <ul style="list-style-type: none"> <li>- Structural / Mechanical Analysis &amp; Optimization Design / Fluid/Thermal Analysis &amp; Design / NVH(Noise, Vibration &amp; Harshness) Design Automation &amp; Validation / Prognostic Health Management(PHM) / Data Analytics(Big Data &amp; Analysis)</li> <li>- Electronic Packaging Technology(Micro Bonding, 3D/Cavity Packaging, High Power Packaging)</li> <li>- Circuit Design(High Speed Signal PCB, Power Circuit) / EMC / Thermal / Reliability (RF / Antenna, Thermal Design/Material)</li> <li>- Particle Control / Production Environment Design(Clean Room, Mini Environment, Air Flow Simulation etc.) / Aerosol Control Technology</li> <li>- Welding(Ultrasonic/Brazing, Dissimilar/Non-Ferrous) / Casting / Diecasting(Thin-Wall, FVDC, Simulation) / Metal Forming(Bulk, Sheet)</li> <li>- Mechanical Machining/Cutting, Polishing / Molding(Injection, Composite materials) / Printing(Gravure, Offset, UV) / Spray Coating(Paint/Process Formulation)</li> <li>- Plastic Material(High Rigidity, High Hard, Light Weight) &amp; Composite Materials(CFRP, Transparent, Transparency GFRP) Development/Application</li> <li>- Glass Forming / Glass Strengthening / Ceramic / Ceramic Spray</li> </ul> </li> <li>Production System Engineering                             <ul style="list-style-type: none"> <li>- Production System(Manufacturing Process, Line, Factory) Design &amp; Simulation(Simulation, Virtual Tech)</li> <li>- Production &amp; Operation Management(Rule, Process) / Optimization of Supply Chain Design &amp; Production Planning</li> <li>- Roadmap for Production System Set-up &amp; Operations Strategy</li> <li>- Product Architecture(Platform, Module) Planning &amp; Optimization / Design Standardization / Product Development Process, Procurement Engineering</li> <li>- Quality Management / TRIZ</li> <li>- Statistical Modeling &amp; Mining of Big Data(Product Planning, Design, Manufacturing, SCM, Sales/Marketing)</li> <li>- Equipment / SW Architect / Big Data Analysis System Design &amp; Development of Equipment Operations</li> </ul> </li> <li>Equipment Technical Sales                             <ul style="list-style-type: none"> <li>- Technical sales of LCD/OLED / Touch / Camera Module / Battery / Solar Cell&amp;Module Equip.</li> <li>- Equipment Promotion / Project management / Marketing Planning / Sales activity for B2B Customer</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Mechanical Engineering</li> <li>Electrical / Electronic Engineering</li> <li>Electronic Engineering</li> <li>Industrial Engineering</li> <li>Material Engineering</li> <li>Electrical / Electronic Engineering</li> <li>Industrial Engineering</li> <li>Management Engineering</li> <li>Computer Science</li> <li>Optics / Physics / Electronics</li> <li>Mechanical Engineering</li> <li>Electrical / Electronic Engineering</li> <li>Material Engineering</li> <li>Polymer / Ceramic / Chemical Engineering</li> <li>Industrial Engineering</li> <li>Management Engineering</li> <li>SW Engineering</li> <li>Mechanical Engineering</li> <li>Electrical / Electronic Engineering</li> <li>Management Engineering</li> </ul>