

Placement of offer KIST Europe KCUE Internship Program (2015 -02 Draft)

Microfluidics chemistry, biology, engineering, and/or physics	<ul style="list-style-type: none"> (1) Carbohydrate separations (2) Ultra high voltage electrophoresis (3) Biomimetic microfabrication of fluidic networks (4) Liver cell culture on chip (5) Free-flow ITP and mass spectrometry
Energy Chemistry (Electrochemistry) Chemical Engineering, Electrical Engineering (Control) Material Science, Mechanical Eng. (System)	<ul style="list-style-type: none"> - Electrochemical Energy Transformation and Storage <ul style="list-style-type: none"> ① High Temp. PEM Fuel Cells using Ionic Liquids ② Electrochemical Reduction of CO₂ ③ Vanadium Redox Flow Battery Stack Upscaling - Storage System Control using LabVIEW - Computational Fluid Dynamics (Flow Modelling)
Bio-Mems Biology, Biosensors Electrochemistry, Engineering, Mechatronics	<ul style="list-style-type: none"> - Enzyme-based Biosensors w. Cytochrome P450 - Assembly & Testing of the Biosensors (QCM, Potentiostat, etc.) - Establishment of 2/3D Micro- to Nanoelectrodes made from Novel Materials (Self Assembly & Microfabrication Techniques) - Biosensor & Microfluidic Chip Fabrication (dif. Microfabrication Techniques) - Substrate Screening for Drug Discovery, Medicine & Biocatalysis (Handling of Enzyme Biosensors)
Magnetics engineering, physics	Magnetic self-assembly of macro-scale objects, Manipulation of magneto-tactic bacteria inside microfluidic chips
Environmental Safety, Convergence Environment Chemistry, environment, health or biology	<ul style="list-style-type: none"> o Global Chemical Regulation Compliance (REACH and REACH-like) o Ecotoxicological Assessment o Exposure assessment model o Bio-informatics and Chemical Risk Assessment o Nano-toxicity and Nano Risk Assessment, o Bioavailability by Passive sampling for mixture toxicity
Industry & Technology Strategy Technology Management, Industrial Engineering All of science and engineering	<ul style="list-style-type: none"> - Industry & technology Strategy - International project planning - Business & Service Modelling - Market & Technology Analysis
Global Cooperation Technology Management / Science & Engineering / Social Science / Media Communication	<ul style="list-style-type: none"> - Technology Cooperation and Networking - Patent Management & Tech. Transfer - Korea EU Innovation Academy - International Cooperation & Public Relations