# Internship: Barcelona Sample Engineering Placements

| Chemical Engineering | Engineering and Health | - Assist in group projects focused on the synthesis, characterization and application of engineered inorganic nanoparticles  
- Approach with comprehensive view of nanoparticle engineering  
- Specific tasks given upon arrival |
|----------------------|------------------------|--------------------------------------------------------------------------------------------------|
| Chemical Engineering | Healthcare Technology  | - Assisting in the design of a molecular diagnosis sensor  
- Studying the process of inkjet printing lenses onto pixels  
- Assisting in general Research and Design work to aid the company’s growth |
| Civil Engineering    | Energy Systems         | - Evaluate potential business models for provision of services through the UK branch  
- Develop innovate tools for Energy Saving Company (ESCO) model for the optimization of in-flight operations for surrounding airports |
| Civil Engineering    | Transportation Engineering | - Evaluating simulations in order to predict the demand of taxies with in Barcelona  
- Gather information on vital transportation spaces while creating a predictive map of taxi transportation |
| Civil Engineering    | Energy Services        | - Identify TOP Partners  
- Identify TOP Customers  
- Customer lifetime value VS Customer Acquisition Cost: global, UK, Spain and Rest of the World.  
- Churn by Account Size (in revenue and data-points)  
- Classify customers by Sector and benchmark the consumption |
| Civil Engineering    | Environmental Engineering | - Investigate the impact of Shale Gas on the major gas and electricity markets in the USA and Europe  
- Analyze the current stage and predicted evolution of the energy markets. Analysis of agent rankings  
- Support the integration of energy or auditing processing  
- You will receive one week of training on the energy markets in Spanish |
- Identify main competitors within market  
- Benchmarking of main identified IT Energy Management Systems and classification by features  
- Roadmap proposal for future market expansion  
- Support CEO and Board of Directors on daily tasks  
- Collaborate with R&D team regarding the prioritization of new development |
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<table>
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<tr>
<th>Civil Engineering</th>
<th>Environmental Engineering</th>
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| - Optimize the energy production processes  
- SCADA integration – Energy Intelligence – ERP  
- Analyze the standard packages of the market (Siemens, Schneider, Wonderware, Rothwell)  
- Model tendency project keeping in mind the autoconsumer and renewable energy *pending regulation*  
- Support projects of energy and audit integration  
- One week of energy management training (Spanish) |

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<tr>
<th>Civil Engineering</th>
<th>Power Grids</th>
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| - Testing and evaluating irid’s products hardwares and softwares in order to improve technical Manuals.  
- Technical support to test task products, test environment preparation, test procedure execution, etc.)  
- Proficiency English revision of the commercial/sales documentation (documents and presentations)  
- Marketing support task |

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<th>Engineering</th>
<th>Biotechnological Company</th>
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| - Update the database with contacts of people, companies, institutions in India, Korea and Japan  
- Updating to reflect the current situation of projects, molecules offered and molecules demanded  
- Tracking and updating the types of chemical reactions more demanded  
- Marketing studies of the situation of chemical business in India/Japan/Korea  
- Marketing studies of the situation of pharmaceutical business in India/Japan/Korea  
- Design and preparation of the marketing strategy plan in India/Korea/Japan  
- Edition of the commercial literature tools to be launched  
- Update of the website  
- Collaboration in the preparation and edition of technical and commercial offers for Indian customers  
- Visit to the lab facilities to familiarize with most common technologies and techniques |
## Internship: Barcelona Sample Engineering Placements

| Industrial Engineering | Architecture Firm | - Editing digital images  
| | | - Drawing plans  
| | | - Implement web pages  
| | | - Blog content writing  
| | | - Knowledge of AutoCad and advanced  
| | | - Photoshop skills  
| Industrial Engineering | Engineering and Consulting Services | - Segment benchmarking- Conduct social media analysis and identifying trends- Compile competitors analysis and research h- Gathering electronic media content (articles, websites, "daily thoughts", videos)- Manage all content- Prepare for Summit  
| Industrial Engineering | Architects and Structural Consultants | - Supporting a project for a building in Eixample district in Barcelona (Structural design and reinforcement of that building)  
| | | - Supporting a project for a building in Teià (Barcelona)  
| | | - Supporting a project for a building in Esplugues de Llobregat (Barcelona)  
| | | - Follow up work for a structural reinforcement project at Calle Tres Senyores in Barcelona  
| | | - Drawing plans of these projects  
| | | - Writing up notes and summaries of the projects  
| Mechanical Engineering | Manufacturing | - Design, calculation, and elaboration of manufacturing plans of the port structure that they will use for a project in France  
| | | - Elaborate the manufacturing plans of standard profiles  
| | | - Commercial client tasks for Italy and France  
| | | - Technical visits to some photovoltaic plant installations  
| | | - Elaborate the manufacturing plants of a project in Romania  
| | | - Help out with day to day operations in the business  
| Mechanical Engineering | Online Retail | - Designing web platform in English and identifying market volume  
| | | - Assisting in long term marketing goals and projects  
| | | - Actualize the development of online sales action strategy plans  
| | | - Assist in daily business procedures and systems  

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<th>Engineering Discipline</th>
<th>Company/Engineering</th>
<th>Description</th>
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<tbody>
<tr>
<td>Mechanical Engineering</td>
<td>Company</td>
<td>- Intensive use of their 3D scanner (2) Use of the company’s cutting edge, specialized engineering software: Inventor and Polyworks, which is specific for real parts, not just designed ones (such as the ones built by means of CAD). The company would train the student on them. (3) Proofreading of technical texts in English.</td>
</tr>
</tbody>
</table>
| Software Engineering    | Mobile Advertising  | - Help us increase the scalability of our software solution, either by increasing efficiency of our mathematical operations or allowing it to run on the Amazon Cloud and expand or decrease the number of required servers automatically and based on demand.  
- Help us shift our database architecture, migrating some of the data storage and analysis from SQL databases to NOSQL modes.  
- Help us improve the design of our algorithms that make 100ms decisions about prices to pay and ads to serve. This includes design, implementation and testing of proposed solutions. |
| Software Engineering    | Engineering Development | - Support in the marketing and communication strategy development for the company  
- Support in the international growth and development  
- Assist on innovative project management in the recruitment and fund management for new technology.  
- Work to finance R + D +I business ventures and outreach programs  
- Organize both internal and external events in which KIM participates |
| Structural Engineering  | Architectural & Construction Consultancy Firm | - Construct 4D and 5D solutions to prepare an innovative workflow  
- Learning and using a variety of software  
- Preparing and producing systematics reports |