Interns (2019 - 2020, 50+ Openings)

The internship program offers you hands-on experience beyond the classroom with one of the leading semiconductor companies in the world. By participating in this program, you can not only explore exciting opportunities and enjoy social life in a dynamic business environment, but also gain valuable work experiences that differentiate yourself from your peers.

You will be assigned to assist our Technology Development / Product Development / IT professionals in the following exciting enabling technology projects. Apart from that, you will have chances to broaden your horizon by visiting our China Plant and joining volunteer activities. We will also support you to develop new skills by providing training courses and completing your internship project. Supervisors will be here to support and guide you.

We believe this program can enable you to better prepare your future career development and understand your own interest.

1. **Software Engineering**

Responsibilities:

- Supporting model-based software development;
- Assisting in software development life-cycle for semiconductor equipment, including design and development of software, implementation of User Interface and integration of software; and
- Supporting and maintaining existing software.

Requirements:

- Year 2-3 undergraduates from Computer Science / Engineering / Mathematics / Physics or relevant disciplines; and
- Knowledge in C and application programming is required.
- Knowledge on C++ programming in Windows or Linux is required.
- Knowledge on C#, javascript or additional script language is a plus.

2. **Diagnostic & Testing / Digital Electronic / System Engineering / Motion Platform**

Responsibilities:

- Participating in test methodology development, test framework development and support; executing test software development cycle to create scalable and optimized test software; providing expertise in managing, planning, constructing and executing system testing; demonstrating the ability to cope with growing complexity and creativity in design by thinking outside the box to determine the best way to test the system;
Developing and supporting digital controller board (including board design, FPGA firmware development, etc), conducting digital controller board test flow and assisting in test program development; and

Participating in software development on Cloud platform or Motion control platform (embedded system).

Requirements:

Year 2-3 undergraduates from Mechanical Engineering / Mechatronics / Automation/Electronics / Electrical Engineering / EEE / Manufacturing Engineering / Industrial Engineering / Software Engineering / Computer Engineering / Computer Science / Information Engineering / Information Technology / Information Systems or relevant disciplines; and

For Diagnostic & Testing team, it would be an advantage if the candidate possesses knowledge of C# programming and/or Labview in Microsoft Windows platform.

For System Engineering and Motion Platform team, the candidate should possess good knowledge of C++ and C# programming in Microsoft Windows platform; knowledge of database technologies (e.g. MSSQL, MySQL) and web programming (e.g. PHP and JavaScript).

3. **Dispensing System / Mechanical Design / Motion / Sensor / CE Motor / Thermal**

Responsibilities:

Assisting in mechanical development, test Jig design preparation, prototype measurement and qualification, data collection as well as analysis;

Participating in electromagnetic sensor development, MCU programming, electronics circuit development, prototype measurement and qualification, data collection and analysis;

Conducting motion system construction, tuning and evaluation, electronics circuit development, prototype measurement and qualification as well as web page development and maintenance;

Supporting CE motor projects and mechanical test jig development;

Supporting optics project and mechanical test jig development (need to go to China Plant once per week);

Supporting motor project support, mechanical test jig development and CE motor project support (need to go to China Plant once per week); and

Supporting thermal design projects.

Requirements:
• Year 2-3 undergraduates from Mechanical Engineering / Mechatronics / Automation / Electronics / Electrical Engineering / Computer Engineering / Applied Physics or relevant disciplines.

4. **Computer Vision / Optics**

Responsibilities:

• Developing image processing algorithms and 3D system, training deep learning models and designing convolution neural networks;

• Developing high resolution image sensor and its peripherals and diagnostic hardware systems, and evaluating advanced image processing platforms, imaging and lighting effects;

• Building a Continuous Integration System, developing graphical data analysis tools as well as general-purpose software modules;

• Studying diagnostic optical performance, simulating imaging and lighting effects and designing precision optics systems;

• Gathering user requirements to define system functionality and write well-designed, testable and efficient code; and

• Assisting in PCB design, circuit simulation, MCU and FPGA programming, new product testing and debugging.

Requirements:

• Year 2-3 undergraduates from Automation / Information Technology / Information Systems / Computer Engineering / Computer Science / Electronics / Software Engineering / Mathematics or relevant Engineering disciplines; and

• For Software Team, the candidate should process good knowledge of C and C++ programming. It would be an advantage if the candidate processes knowledge of HTML5 / CSS / JavaScript and/or git.

• For Hardware Team, the candidate should be familiar with PCB design and circuit simulation tools; strongly interested in electronic design and strong in analytical and trouble-shooting skills in hardware and firmware issues.

5. **Electronic Engineering / Control Engineering / Embedded Application Software**

Responsibilities:
• Assisting the development of motion / electronics system (power drive and power supplies) involving testing, setup, repairing and measurement; with occasional involvement in firmware and test program development;

• Supporting control system tool development and maintenance, tuning control parameters, trouble-shooting and problem solving for motion system; and

• Designing and deploying software and firmware for real time embedded control applications; providing technical expertise and solution to semiconductor equipment products and field for deployment of real time embedded controllers developed.

Requirements:

• Year 2-3 undergraduates from Mechanical Engineering / Electronic Engineering / Computer Engineering or relevant disciplines; and

• For Electronic Engineering team, it would be an advantage if the candidate possesses project experience on MCU / FPGA / SoC; project experience on analog or power electronic circuit; knowledge on motor control, analog electronic and switch mode power supplies.

• For Control Engineering team, the candidate should possess knowledge in basic control theory (e.g. PID control, frequency domain system identification, etc); knowledge in Matlab and Simulink; knowledge in machine learning; knowledge in Python coding will be an advantage.

• For Embedded Application Software team, the candidate is good to have knowledge in microcontroller, C/C++/C# programming language and control strategy; knowledge in multi-threading and object-oriented programming is an advantage.

6. **Mechanical Engineering**

Responsibilities:

• Assisting in mechanical modules development life-cycle, including design and manufacture test Jig, and development of test metrics; and

• Performing data analysis and participating in quality process improvements.

Requirements:

• Year 2-3 undergraduates from Mechanical Engineering / Mechatronics / Automation or relevant disciplines.

7. **Process Engineering**

Responsibilities:
• Assisting in optimizing machine automation, using DoE in defining process flow and requirements and trouble-shooting; and

• Participating in Engineering Evaluation, including dispensing, bonding and cutting.

Requirements:

• Year 2-3 undergraduates from Applied Physics / Applied Mathematics / Mechanical Engineering / Materials Science / Chemical Engineering or relevant disciplines; and

• Strong in analytical methods.

8. **Information and Communications Technology**

Responsibilities:

• Developing Web Application, Mobile Application or SharePoint Application; and

• Supporting Business Process Management Development and working in .Net, C# and SQL.

Requirements:

• Year 2-3 undergraduates from Computer Science or relevant Science disciplines; and

• Knowledge in Android/IOS Programming, JQuery Mobile, .Net is a plus.

Internship Period: June 2019 – May 2020 (one year's full-time employment)

Upon completion of one year’s contract, the intern will receive a contract bonus equivalent to one month’s basic salary.

Interested parties, please submit your application with cover letter, resume, certificate and transcripts via our career website [https://careers.asmpt.com](https://careers.asmpt.com) (please search “Interns 2019 – 2020 (50+ Openings)”). Or please scan the QR code for direct access.

You are strongly advised to state your top 3 interests at the top of your CV / resume before submission.

1. Software Engineering

2. Diagnostic & Testing / Digital Electronic / System Engineering / Motion Platform
3. Dispensing System / Mechanical Design / Motion / Sensor / CE Motor / Thermal

4. Computer Vision / Optics

5. Electronic Engineering / Control Engineering / Embedded Application Software

6. Mechanical Engineering

7. Process Engineering

8. Information and Communications Technology

Your preference will be taken into consideration; however, final assignments will be based on your qualification, competence and vacancy.