

SMS group GmbH

Eduard-Schloemann-Strasse 4

D-40237 Düsseldorf

Phone: +49 211 881-0 Fax: +49 211 881-4902 http://www.sms-group.com

Internship Certificate

The SMS group GmbH is a company operating internationally in the plant and equipment-building sector for the processing of steel and NF metals. The SMS group GmbH belongs to the SMS group which, with approximately 14,000 employees worldwide, generates sales of over EUR 3 billion.

Mr. Hanming Zu, born on 14 April 1998 in Beijing/China, completed an internship for university students from 2 July 2018 to 10 August 2018 in our Application and Process Automation Metallurgy unit.

Tasks:

- Modbus implementation on microcontroller
- selection of suitable radio modules for communication in master/slave
- development of a Modbus-Master software in C# and Windows Forms GUI
- GPS-data processing on microcontroller
- Printed Circuit Board (PCB) design for prototyping
- setup of test environment with developed hard- and software and testing
- documentation of developed soft- and hardware

Assessment of the intern:

Mr. Zu carried out the tasks entrusted to him very conscientiously and diligently and always to our complete satisfaction. He impressed us with his well-planned, systematic approach and proactive thinking and worked on many occasions in an autonomous and extremely reliable manner. He was always able to perform very well when faced with high workloads and demonstrated a consistently and exceptionally high willingness to perform. Mr. Zu identified with his tasks and at all times achieved the best results at work.

His personal conduct towards both superiors and fellow employees was impeccable at all times.

We wish Mr. Zu good luck and every success for the future, both personally and professionally.

Düsseldorf, 10.08.2018

SMS group GmbH

Head of Human Resources Management/

Corporate Human Resources Development

Marjøn Hermanns

Head of Professional Training