

# Lab Internship for Overseas Students in Shenzhen Technology University

**Internship in Lab of Beer Brewing Process Control** (Reference Number: Intern/a/201809/01)

## Lab Introduction

We are a research team in Sino-German Laboratory of Beer Brewing Process Control, Sino-German College of Intelligent Manufacturing, Shenzhen Technology University, Shenzhen, China. This laboratory is established by absorbing the successful experience of OTH Regensburg, combines the teaching process and industrial producing together. It takes the German industrial beer brewing as its teaching background. In this laboratory 100-Liter brewing system is established to train students of the process control theory and it is operated with a Siemens S7-200 controller. To enhance the automation of the brewing process, an equipment alteration is needed. To carry out further control and automation, the software Siemens PLC programming should be used. We are looking for candidates who can help us design some screen interface, program in PLC and complete some experiments.

## Your Tasks

1. To change all the manual valves to electromagnetic ones and reassign Input/ Output of PLC.
2. To design the touch screen interface to monitor the brewery system.
3. To program in PLC for automatic control of the system according to brewing process (mashing, lautering, boiling, whirlpooling.) .The applicant will learn the brewing in the lab.
4. To monitor process parameters such as temperature, pressure, steam flow, liquid level and composition during brewing.
5. To write technical docs (including schematic chart) and safety instructions for the modified equipment.
6. To prepare teaching/examine documents for the education of students.

## Requirements

1. PLC programming skills-essential
2. Mechanical aptitude and basic problem-solving skills (essential)
3. LabVIEW programming skills-desirable
4. Brewing knowledge and quality standards –desirable
5. Previous experiences in a similar role-desirable

## Benefits

1. Feel at home. We provide you with a laptop, comfortable working space, free drinks and more
2. Fun at work and beyond. Join our regular team events - there's always something to celebrate!

## Supervisor

Dr. SHEN Wenjing

Assistant Professor of Sino-German College of Intelligent Manufacturing  
2002-2006 Bachelor Degree in Central South University, Changsha, China

2006-2009 Master Degree in Central South University, Changsha, China

2013-2017 Ph.D. Degree in City University of Hong Kong, China (in Systems Engineering and Engineering Management)

Current Research Interest: modelling of thermal distribution in industrial processes, data-based modelling, and optimization

Academic Achievements: more than 10 journal papers; 8 invention technology patents

Awards: Hong Kong Government Scholarship, Outstanding Graduate of CSU, Outstanding Graduate of Hunan Province, Excellent Graduate Leader, Shenzhen overseas high-level talents "Peacock Plan" Class C talent.



Please send a full curriculum vitae and passport copy together with copies of qualification documents by email

to [international\\_internship@sztu.edu.cn](mailto:international_internship@sztu.edu.cn) with the email subject as "Reference Number – Job title – Full name of applicant".

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