

# Cheng-Han Yu

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## Education

### **Linköping University (LiU), Sweden**

**Mar 2018 – Mar 2022**

*Ph.D student, Department of Management and Engineering, Division of Engineering Materials*

Ongoing research with the focus on Additive Manufacturing of metallic materials. In close collaboration with Siemens Energy AB, Sweden, and within the research frame work of the Swedish competence centre for Additive Manufacturing, CAM2.

### **Linköping University (LiU), Sweden**

**Sep 2014 – Sep 2016**

*Master of Science, Programme of Applied Physics, Department of Physics, Chemistry and Biology*

Under the joint dual-degree programme, 3 years bachelor in NTHU + 2 years master in LiU.

### **National Tsing Hua University (NTHU), Taiwan**

**Sep 2011 – June 2014**

*Bachelor of Engineering, Department of Materials Science and Engineering (MSE)*

## Conference Experiences

### **EUROMAT 2019, Stockholm, Sweden, Sep 1-5 2019**

Oral presentation, “Anisotropic Mechanical Properties of Thin-walled Hastelloy X by Selective Laser Melting.”

### **Alloys for Additive Manufacturing Symposium 2019, Göteborg, Sweden, Sep 18-20 2019**

Poster presentation

### **EURO PM2019 Congress & Exhibition, Maastricht, The Netherlands, Oct 13-16 2019**

Oral presentation, “Anisotropic mechanical properties of thin-walled Hastelloy X manufactured by laser powder bed fusion.”

### **TMS Superalloy 2020, Pennsylvania, USA, Sep 13-17 2021**

Article in the proceeding. The conference is held every 4 years and it will be the 14th in 2021.

## Honoured scholarships

**Green Energy Scholarship Programme, Ørsted A/S (Danish company)**

**2020**

**Government Scholarship for Studying Abroad, Ministry of Education, Taiwan**

**2018 - 2020**

**Travel grant for Ph.D. exchange from IEI in Linköping University**

**2020**

**Travel grant for research from Axel Hultgrens Foundation, Sweden**

**2019**

## **Publication records**

C.-H. Yu, R. L. Peng, V. Luzin, M. Sprengel, M. Calmunger, J.-E. Lundgren, H. Brodin, A. Kromm, J. Moverare, "Thin-wall effects and anisotropic deformation mechanisms of an additively manufactured Ni-based superalloy," Additive Manufacturing, October 2020

C.-H. Yu, R. L. Peng, H. Brodin, and J. Moverare, "Anisotropic deformation and fracture mechanisms of an additively manufactured Ni-based superalloy," in TMS Superalloys 2020, 2020.

A. Leicht, C. H. Yu, V. Luzin, U. Klement, and E. Hryha, "Effect of scan rotation on the microstructure development and mechanical properties of 316L parts produced by laser powder bed fusion," Mater. Charact., vol. 163, no. March, p. 110309, 2020.

Y. H. Chen, J.J. Roa, C.-H. Yu, M. P. Johansson-Jöesaar, J. M. Andersson, M. J. Anglada, M. Odén, L. Rogström, "Enhanced thermal stability and fracture toughness of TiAlN coatings by Cr, Nb and V-alloying," Surf. Coatings Technol., vol. 342, pp. 85–93, 2018.

C.-H. Yu, R. L. Peng, J.-E. Lundgren, and J. Moverare, "Anisotropic mechanical properties of thin-walled Hastelloy X manufactured by laser powder bed fusion," in European Congress and Exhibition on Powder Metallurgy. European PM Conference Proceedings, 2019.

## **Work Experiences**

### ***Seco Tools AB, Sandvik Group***

***Feb 2016 – Aug 2016***

A master thesis project in the R&D coating group of Seco Tool AB. The work focused on the hard coating on cutting tools grown by cathodic arc deposition.

## **Teaching Experiences**

***Mar 2018 – Now***

**Master project supervision**, "Additive manufacturing: FEM model study of thin wall effect and anisotropic mechanical behaviour from fatigue"

**TMKM12 Engineering Materials Metals**, Tutorial session

**TMKM16 Sustainable Materials Selection**, Tutorial session and Project supervision

**TMKM18 Engineering Materials**, Welding and Manufacturing Technology, Lab session

**TMKM21 Engineering Materials**, Tutorial session, Tutorial session

**TMKM90 Engineering Materials - Deformation and Fracture**, Tutorial session

**TMPE06 Project Course Advanced - Technology for Sustainable Development**, Project supervision

## **Positions of Responsibility**

### ***Board member of Agora Materiae student council.***

***Oct 2018 – Now***

Agora Materiae is a graduate school for PhD student who is working on materials science. The student council works on all the activity within the graduate school, including arranging study visit, scientific seminar and conference and more.

### ***Compulsory military service***

***Nov 2016 – Oct 2017***

Serving in the emergency room of Taipei veterans' general hospital. Mainly taking care of veterans, and also providing service to general public.

### ***Chairman of LiU-TSA, Sweden***

***Sep 2014 – Sep 2015***

In charge of International festivals and activities for Taiwanese students.

***Emcee of Official Ceremonies in NTHU, Taiwan***

***Sep 2011 – Jun 2014***

Presenting honorary distinguished chair professor to Dr. Irwin Mark Jacobs and Dr. Dame Jane Goodall, anniversary of the school...etc. Working as reception and leading other student ambassadors in ceremonies or activities as well.

***Board member of Pop Dance Club in NTHU, Taiwan***

***Sep 2011 – Jun 2013***

*Participating in many dancing performances and contests, holding activities as well.*

**Languages**

***Chinese***            *Native speaker*

***English***           *Full Professional Proficiency*

***Swedish***          *Limited Working Proficiency*

***German***           *Elementary Proficiency*