

## Visit Northeastern University in Shenyang, China

2018.11.12

CNERC paid an official visit to Northeastern University in Shenyang, China on 12 November 2018, and had an in-depth discussion and academic exchange on the issues of high-strength steel research with Academician Wang Guodong of Northeastern University and his research team. The CNERC delegation team consisted of:

- Ir Prof. K. F. Chung Director of CNERC
- Dr. H. C. Ho Deputy Secretary General of CNERC
- Mr. Jin Hao PhD Student of PolyU

Delegates of Northeastern University included:

- Academician Wang Guodong
- Prof. Yuan Guo
- Dr. Kang Jian
- Dr. Wang Chao

At the beginning of the meeting, Prof. K. F. Chung first introduced the results of the research on high-strength steel of the CNERC. Then, he focused on the recent collaboration of National Key Laboratory of Rolling Technology and Continuous Rolling Automation of the Northeastern University, namely the microstructure of high-strength steel welding heat affected zone, and a detailed report on the relationship between mechanical properties was discussed. Both parties discussed the experimental results and expected improvement measures for the preparation of welding thermal simulation specimens in the Northeastern University laboratory. Academician G. D. Wang explained the phenomenon of organizational structure transformation and performance degradation in the heat affected zone of welding, and further proposed potential solutions for steel smelting, composition design, casting and other processes. Professor G. Yuan also shared an improvement plan for the phenomenon that steel is degraded after welding in non-construction fields such as machinery and ships.

In response to the feasibility of application of high-strength steel in the field of building structure proposed by Northeastern University, Prof. K. F. Chung made a detailed explanation based on the research results of the previous stage of the CNERC: the mechanical properties and welding of steel for construction were introduced in detail. Post-performance requirements, as well as welding short-column experiments conducted by the CNERC. Prof. K. F. Chung also presented the scientific research achievement of 690 steel, “European Standard EN1993-1-1 Steel Structure Design Technical Guide”, to Academician G. D. Wang and his research team.

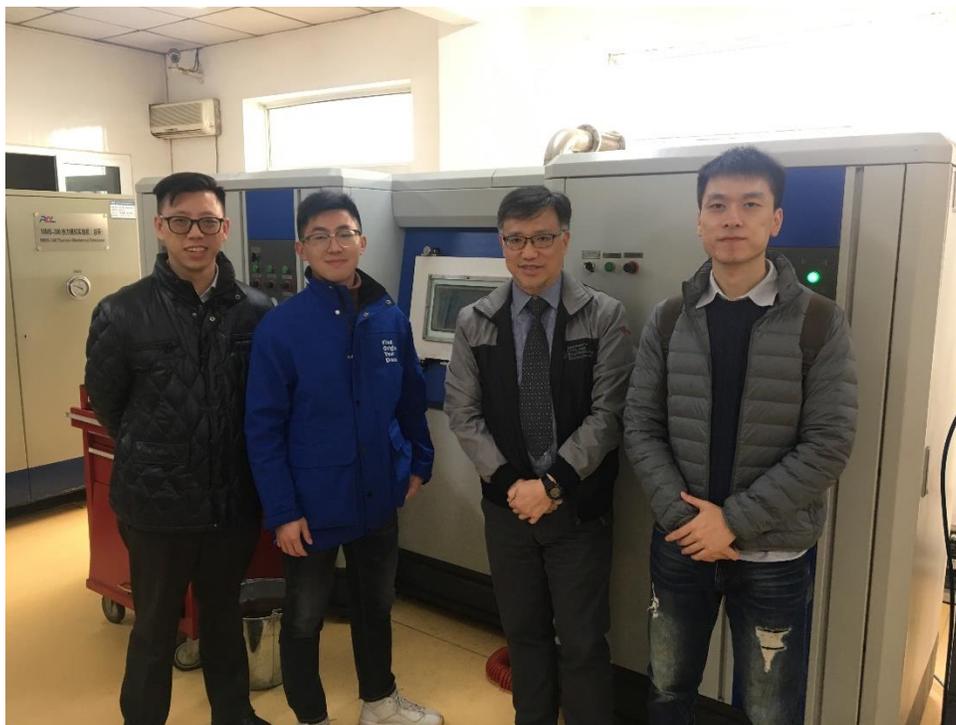


From left: Academician G. D. Wang and Prof. G. Yuan From right: Prof. K. F. Chung and Dr. H. C. Ho

In the afternoon, the CNERC delegates visited the State Key Laboratory of Rolling Technology and Continuous Rolling Automation to see the modern rolling process simulation research platform and the material organization performance testing platform, and also learned in details about the 450-second rolls independently developed by the Northeastern University as well as the hot rolling testing unit and MMS series thermal simulation testing machine.



450 two-roll hot rolling test machine developed by Northeastern University



From left: Dr. H. C. Ho, Dr. Y. J. Li, Prof. K. F. Chung and Mr. H. Jin in front of the MMS thermal simulation testing machine