

**DEPARTMENT OF MECHANICAL ENGINEERING****SEMINAR****Online**

**Title:** Improving the Bendability of next generation advanced high strength steel (AHSS)

**Speaker:** Mr. Guan Ming (PhD candidate)  
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**Date:** 27 April, 2022 (Wednesday)

**Time:** 10:15 a.m. (Hong Kong Time)

**Zoom meeting:** 1) Link to join the meeting:

<https://zoom.us/j/94528102909?pwd=UGo3OW1ocFZraFFGcjRyQVlCUzVXZz09>

2) Meeting ID: 945 2810 2909

3) Password: 123654

**Abstract:**

Carbon neutrality and sustainable development are eternal topics for the coming century. The challenge from carbon emission reduction drives the automobile industry to develop Advanced High Strength Steels (AHSS) because these novel high stress materials enable the combination of safety and lightweight car body. It has been demonstrated every 10% weight reduction will lead to 6% increase in fuel economy. Al-Si coating is a newly developed technology to protect the steel surface from decarburization and oxidation during industrial fabrication. Nowadays Al-Si coating is already one of the most fundamental and unreplaceable technologies of PHS. However, Al-Si pre-coating layer inevitably compromises the bendability of PHS. The research to compensate the loss of bendability caused by Al-Si coating is urgently needed for the further development of lightweight vehicles and carbon neutrality in automobile industry.

**ALL INTERESTED ARE WELCOME**

For further information, please contact Prof. M.X. Huang at 3917 7906.

**Research area: Advanced Materials**