**Paper / Proposal Title:**
Reflection on the Practical Design Course Based on Sino-Foreign Joint Teaching——Taking SDC2018 Sino-German Joint Teaching as an Example

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**Abstract (300 words):**

The Solar Decathlon (SD) is a solar building technology competition sponsored by the US Department of Energy. The competition requires that each team build a solar house within the specified time. The built houses are inspected according to ten aspects, such as architectural design, on-site construction, and marketing. In 2011, the National Energy Administration of China and the US Department of Energy signed a cooperative agreement for the "Solar Decathlon Competition," which launched Solar Decathlon China (SDC).

In addition to architecture design, the competition involves technology and many other related areas of knowledge which challenge the traditional teaching mode of architecture design that has design curriculum as the core. Based on the internationalization platform of SDC 2018, the Southeast University School of Architecture and the German Brunswick University of Technology, which is more advanced in solar architecture technology research, participated together in the competition, taking this opportunity to carry out Sino-German joint teaching to explore suitable teaching methods for practical design.

This paper records and analyzes the whole process of the teaching practice of design and construction, from the perspective of teachers and students who
participated in the competition. First, it discusses the joint foundation, organizational structure, and teaching process of the course. Second, it compares and analyzes the similarities and differences between this course and traditional design courses by reviewing and reflecting on the collision and integration of “design-based” and “technology-based” ideas in the Sino-German joint design course. Finally, aspects needing further improvement in the practical design course based on Sino-foreign joint teaching are summarized by analyzing problems in the real construction.

• Author(s) Biography (200 words each):
Associate Prof Li Xiangfeng is engaged in scientific research and teaching of architectural design as well as its theoretical specialty, the main research directions include: the theory and design method of superposition of material space and social space, the application of ecological technology, the research of aging construction, etc. As one of the main instructors, he instructed students to participate in SDC2013 and SDC2018 on behalf of Southeast University, and they all achieved good results in the competition. Ying Yuan is the Master in reading of Southeast University, majors in architecture design and theory. As one of the lead members, she participated in the whole process of SDC2018 including architectural design, site environment design, energy system design, communication and marketing publicity. In October 2017, she went to the US with the organizing committee to visit the solar decathlon competition site and the national energy center. In addition, in July and August of 2018, she participated in SDC2018 as the role of the jury assistant for the organizing committee, so as to explore the frontier development trend of solar houses from both perspectives of organizers and teams.