Professor Chi-Min Shu has created tremendous momentum in the area of process safety and proactive loss prevention via the initiation of the Process Safety and Disaster Prevention Laboratory (PS&DPL) for Taiwan. The majority of the focus is on thermokinetic analysis, runaway reactions, prevention of fire/explosion, risk assessment and process safety related issues. Since thermal safety is always a crucial concern and paid close attention in the chemical industries around the world because of any serious fire and/or explosion which may take away dozens or even hundreds of human lives, enormous loss of economy, social outcry, even political turmoil. For above-mentioned reasons, he has motivated his whole life to improving and defining the basic hazardous characteristics and thermokinetic behaviors for highly reactive chemicals in order to avoid thermal accidents from happening. Numerous chemical plants have adopted these data from his research to successfully enhance their process safety as well.

His laboratory findings have been documented by publications in 202 peer-reviewed SCI papers during the past 11 years (among 202 SCI articles, 136 of them have impact factors of more than 2.000. The highest impact factor is 6.196; 22 were published in TOP SCI journals). As in safety science and engineering category in both PR China and Taiwan, Prof. Shu has outperformed the 65 scholars of the National Academic of Engineering and 61 Yangtze River Scholars in PR China in terms of number of SCI publications.

Regarding his academic performance, as selected examples, in 2016, he was elected an American Institute Of Chemical Engineers (AIChE) Fellow and received the Chemical Engineering Technology Award from Taiwan Institute of Chemical Engineers (TWIChE), which is similar to AIChE in USA, for technical service and professional achievements as recognition of his important contributions.

Since 2014, Dr. Shu has developed an industrial safety sector for the Ministry of Science and Technology (similar to National Science Foundation in US), Taiwan. Between 2008 and 2013, he served as Chairman of the Pressure Vessel Association which has been appointed to conduct safety inspections on pressure vessels, boilers and dangerous machinery. In total, 31 inspectors and 9 staffs have been involved in this assignment in central Taiwan. In total, the indirect contribution was valued at ca. 70 billion USD annually which shares a prominent percentage in Taiwan GDP.

Prof. Shu served as an editorial board member for PSP, JSR (Journal of Safety Research, SSCI) and JLPPI (Journal of Loss Prevention in the Process Industries, SCI). Furthermore, he served an associate editor for both JTAC (Journal of Thermal Analysis and Calorimetry, SCI) between 2009 and 2010. The social and technical service from his stellar performance in the process industries has brought in many accolades, such as the Outstanding Research Award in 2007 and 2010, and in 2014

he received the Outstanding Academic-Industrial Collaboration Award; winning both the awards is unique in the history of National Yunlin University of Science and Technology (YunTech), as a top 1% performer, since its establishment among 360 faculty members. From 2011 onwards, he has been among the first five Distinguished Professors of YunTech. He has spear-headed many disaster management programs and monitored crisis management events through chemical engineering in Taiwan and Asia as well.