Process System Engineering for Sustainable Product-Process Engineering, Evaluation and Design

Like the previous year, 2021 has also been a challenge in many ways. The pandemic due to the COVID-19 virus unfortunately did not end and most of the time the work was done online. I am happy to report, however, we all survived and our company actually managed to make further advances:

- Successfully completed several on-going industrial projects from China, Middle East, and USA;
- Organized a well-attended 6-parts PSE for SPEED Webinar series 2021 with Prof Grossmann, Prof Eden, Prof Pistikopoulos, Prof Sahinidis, Prof Overcash, Prof Razia, Prof Bardow, Prof Lee, and Prof You as guest speakers. The recorded videos from the webinars are available at our PSEforSpeed YouTube channel;
- Updated our PSE for SPEED software package* and started our YouTube channel;
- Participated in ESCAPE-31 conference (online) and gave several invited lectures (see our website for more details), including the Sargent Medal 2021 Lecture;
- Continued research collaboration with partners from many universities in many countries. Published more than 16 peer-reviewed journal-book articles with "PSE for SPEED" affiliation.

Contact us if you are interested in

– commercial feasibility of new processing ideas; new chemicals-based products; retrofit or intensification options; fast, reliable and reasonably priced solution; and many more;

– software tools for data (properties of solvents, fragrances, ionic liquids, refrigerants, …); estimated properties of pure compounds and/or mixtures; process flowsheet synthesis-design (including automatic creation of input files for commercial process simulators); model development; chemical product design; and, tailor-made software tool customized for your needs;

– educational versions of our software, free of charge, for use in education and non-commercial research purposes. *Visit the link for more details: (https://www.pseforspeed.com)*

We have collaborated with Dr. Anjan K Tula (Zhejiang University), Prof Lei Zhang (Dalian University), Prof Fengqi You (Cornell University), Prof Jay H Lee (KAIST), Prof Suttichai Assabumrungrat (Chulalongkorn University), Prof Mario Eden (Auburn University), Prof Syeda S Razia (BUET- Bangladesh Univ of Eng & Tech) and Prof Stratos Pistikopoulos (Texas A&M Univ) on various joint research projects and publications.

Rafiqul Gani
February 2022

* **PSE for SPEED software package** consists of **ProCAPE** (property prediction); **ProCAPD** (chemical product design); **ProCAFD** (process flowsheet synthesis-design-analysis); **ProCACD** (process control toolbox); *ProREFD (refrigerant selection and process verification)*; **ECON** (process economic analysis); **LCSoft** (LCA assessment); **MoT** (modelling toolbox) & **ICAS** (integrated computer-aided system) – covering a wide range of application areas & problems. A new tool on Chemical Substitution has been developed. Test versions of any of the above tools will be provided on request.