SEMERNAR ANNOUNCEMENT

A Numerical Study of Nanofluid Flow

by

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Abstract:
Researchers have paid close attention to nanofluid applications since the nanofluids have revealed their potential as working fluids in thermal systems. A nanofluid may be described as a suspension of a common (base) fluid and nanoparticles, which have higher thermal conductivity than the base fluid. Nanofluids have been continuously investigated experimentally and numerically. The numerical studies on the nanofluids can be distinguished by considering them as single- or two-phase fluids. Further, efforts could be focused on improving the single-phase nanofluid approach, since it consumes less calculation time and less complication, by utilizing the mixing thermal conductivity model, which combines static and dynamic parts. On the other hand, two-phase assumption could also be used in nanofluid investigation.

Biography:
Dr. Pramuanjaroenkij is an assistant professor in the Department of Mechanical and Manufacturing Engineering, Kasetsart University, Chalermphrakiat Sakon Nakhon Province Campus, Thailand. She obtained her Bachelor degree and Master degree of Engineering from Kasetsart University, Thailand. After completing her Ph.D. in Mechanical Engineering from University of Miami, USA, she moved back to Thailand and worked in the Department of Mechanical and Manufacturing Engineering, Kasetsart University, Chalermphrakiat Sakon Nakhon Province Campus, Thailand. Her research interests are thermo-fluid sciences, nanofluids, and heat transfer.. Academically, she has published several works in reputable journals and has been collaborating with her former Ph.D. advisor, Prof. Sadik Kakac, to revise two textbooks titled Heat Exchangers: Selection, Rating, and Thermal Design (CRC Press, USA) and Convective Heat Transfer (CRC Press, USA).