

On the 60th Anniversary of Professor Jordan Yankov Hristov



Professor Jordan Yankov Hristov was born in the town of Dupnitsa on September 7, 1954. His parents were teachers of mathematics and physics. He is married to Dr. Violeta Dimitrova, MD, professor of obstetrics and gynecology. Prof. Hristov has two children: Andrey Hristov and Yana Hristova.

Professor Jordan Yankov Hristov has graduated from Electrical Engineering (Measurements), Technical University of Sofia in 1979. Professor Hristov is working at the Department of Chemical Engineering, University of Chemical Technology and Metallurgy in Sofia. Just after his graduation he was ordered to work (36 years ago this was the state system in Bulgaria) in the Department of Chemical Engineering of the Higher Institute of Chemical Technology (now University of Chemical Technology and Metallurgy). The department was interested in development of modern experimental installations in the educational process and the engineering profile of Jordan exactly met these needs at the time. Starting from a position of a technician, even though he was a graduate engineer, he was promoted in the next 3 years to a research fellow. In 1998 he was promoted to the associate professor position and in January 2014 to a professor of Chemical Engineering.

The main research area developed more than 30 years was the fluidization, especially, external field effects (magnetic or electric) for controlling the bed hydrodynamics and consequently the performed heat and mass transfer operations. Working intensively in this field he has obtained his Ph. D. degree in 1994 in Chemical Engineering with a thesis titled *Gas fluidization of ferromagnetic granular materials in an external magnetic field*.

Professor Hristov supervised 6 Ph. D., and more than 25 M. Sc. theses. He obtained a NATO fellowship at the Center for Studies on Risk Technologies (CERTEC), University Politecnica de Catalunya, Barcelona, Spain, on accidents with hydrocarbons (Pool fires of hydrocarbons) and served as a visiting professor in the period of January-June, 2002.

Professor Jordan Hristov is recognized for his studies in two-phase flow in chemical reactors and accidental situations, multiphase flow in Chemical and Biochemical Engineering, fluidization in a magnetic field (Fundamentals and applications), scale analysis and scaling of complex phenomena, fundamentals and applications and external field (magnetic and electric) applications, fluidized bed applications for bioreactors, aerosol filtration and heavy metal recovery by means of natural adsorbents, fire phenomena, fire behaviour of materials, pool fires and fire dynamics, explosions-dust, gases and superheated liquids, risk oriented design and analysis of equipment. As a visiting professor, Prof. Hristov has developed equipment for studies on field-assisted fluidized beds and particulate materials at University of Seville, Spain (in 2007) and a bio-magnetic laboratory in the University of Northern Fluminense, Campos, RJ, Brazil (2009-2010).

Non-linear modelling of heat and mass transfer problems, approximate analytical solutions of integer-order and fractional diffusion equations is Prof Hristov's second area of intensive research in the recent years. In 2010 the application of the integral-balance method to approximate solution of fractional subdiffusion equation was conceived (published in *Thermal Science*) and consequently applied to various problems involving time-fractional derivatives.

He published more than 135 papers and was cited more than 700 times. Since 2009, Professor Jordan Yankov Hristov is the Editor-in-Chief of the *International Review of Chemical Engineering – Rapid Communications* and since 2012 he became the Editor in Chief of the *International Journal on Advanced Materials and Technologies*. He was a board member of *Bio-Magnetic Research and Technology* (2002-2008), *Thermal Science* (since 2004), *Particuology* (since 2004), *Communications to Fractional Calculus* (since 2012), and *British Journal of Engineering and Technology* (since 2012).

He is a fellow of the Bulgarian Society of Chemical Engineers, Bulgarian Union of Scientist – Section Mechanics and EFCE. He is the Scientific secretary and the Editor of the Proceedings of the Permanent *International Workshop on Transport Phenomena in Two-Phase Flows*.

In 2004, Professor Jordan Hristov received the National award for high scientific results based on Part1-Part3 of the ongoing Review series “Magnetic Field assisted Fluidization”, appearing in *Reviews in Chemical Engineering*, and now attaining 10 published issues. Also, he got the *Special award of Chinese Academy of Sciences for Senior Scientists, 2010*, and served as a distinguished visiting professor with the *Institute of Process Engineering*, Beijing in 2011.

He was one of the initiators and supporters of the idea to direct *Thermal Science* journal to become a regional journal in 2003 and was the first guest-editor developing 5 special issues since 2006. Professor Jordan Hristov has always carried out his work with great care, fidelity and correctness, providing interesting suggestions to increase the prestige of the journals where he serves as Editor.

On 60th anniversary we wish to Professor Jordan Yankov Hristov many years of successful work!

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