

TRIBUTE TO ACADEMICIAN IVAKHNENKO

Leonid F. Khilyuk

Laboratory of Energy and Environment,
University of Southern California, Los Angeles, USA

Academician Alexey Grigorievich Ivakhnenko was a Great Ukrainian Scientist and Engineer. He was one of the Giants of the World Science standing on the par with Marvin Minsky (Self-Organization), John Von Neuman (Neural Networking), and Frank Rosenblatt (Perceptron Models). His early research in Automated Control Systems had led him and his coworkers to development of the Theory of the Combined Automated Control Systems which had multiple applications in Engineering. His vivid imagination begot the GMDH (MGUA) which opened a broad avenue and created a powerful scientific movement in the Modeling of Self-Organization Systems. A large cohort of young and very gifted scientists joined the movement around the world. Many of them became loyal followers having published numerous works on the theory and applications of the Inductive Methods of Mathematical Modeling.

A.G. Ivakhnenko was a Great Teacher. Hundreds of young scientists from around the world passed through his aspirantura and became the world renowned authorities in the Methods of Mathematical Modeling and Decision Making and their applications in Engineering, Environment, Natural Resources, Biology, Medicine, etc. Nobody in the World can come even close to him in the terms of the number of doctors who used to be his post graduate students. His department in the Ukrainian Academy of Sciences was and continues being a powerful gravitational center for the curious minds of ambitious young people seeking professional career in science and engineering. The astronomical number of his scientific publications strikes imagination. He had published more books than many of his highly regarded colleagues have read over the life time. His aphoristic jokes, such as “Why should we read the others’ books if we can write ours” and “A true scientist must rush to the podium on any occasion”, well reflect the core components of his educational and scientific credo.

On a personal level he was a person with a sharp sense of humor (“Our scientific power dwells on the ignorance of Mathematics”, for example). He was always ready to help his aspirants, former aspirants, and coworkers. Walter Neskhodovskiy was made to leave Kiev due to registration requirements of those

days. Academician Ivakhnenko found a position of Associate Professor for him in the City of Kherson and spent tens of hours on the phone to ensure that Walter will get this position. He had an amazing nose for potential geniuses and capable professionals. Only one example: As a Deputy Department Chair I recommended a young man with the diploma of not a prestigious university to him for a position of senior engineer supplementing my presentation with a long verbal characteristic about the candidate. His answer was short: “Do not talk too much. Show me his mug.” Next day, after the 5-min interview the verdict was:”Good, hire him.” And he was good.

The Centennial Jubilee of Alexey Grigorievich Ivakhnenko is a great opportunity to commemorate his outstanding achievements in Science, Engineering, and Teaching, to propagate his original scientific ideas and methods around the worlds, and to unite his numerous followers around a powerful idea of self-organization. The Jubilee events will stimulate new ideas and methods and attract young brilliant minds to the field of Inductive Methods of Mathematical Modeling.