

90 Anniversary of Academician Ivan Petkov Popchev



Acad. Ivan Popchev was born in 1936 in Lyaskovets. He graduated as an electrical engineer from the Technical University of Sofia (1960) and joined BAS in 1962. He obtained his Ph.D. in 1967 and a Doctor of Sciences degree in 1980. He was elected a Corresponding Member of BAS in 1995 and a full Academician in 2003. Within the BAS system, he has held key positions, including Acting Director of an institute, member of the General Assembly, and Head of multiple research sections.

Acad. Popchev has managed over 150 international and national projects and 40 industrial contracts. His work led to the implementation of novel systems and software products with significant economic impact in Bulgaria and abroad. He is the author of **597 publications** in eight languages, including:

- **290 articles** in elite journals such as *Fuzzy Optimization and Decision Making*, *Fuzzy Sets and Systems*, *IEEE Transactions on Automatic Control*, and *Mathematics and Computers in Simulation, Electronics, Computers*;
- **256 papers** presented at global forums (IFAC, IFORS, IEEE IS, IFIP, ECAI);
- **18 monographs** and 18 book chapters. His scientific works are highly regarded, with over **2480 citations** in global literature.
- **18 books reviews** in scientific journals.

His research focuses on three primary fields:

1. **Systems Control Theory:** He developed a general theory for hierarchical and decentralized systems, introducing principles of active coordination and robust control under disturbances.
2. **Decision-Making Theory:** He established methods for multi-criteria synthesis in complex models and developed algorithms for decision-making under risk and uncertainty.
3. **Artificial Intelligence:** He substantiated systems for knowledge management, soft computing, and virtual intelligent environments. His recent research includes genetic algorithms for humanoid robots and frameworks for the evaluation of Large Language Models.

His teaching career began in 1966. He has served as a Professor at the Technical University of Sofia, Plovdiv University, New Bulgarian University, and Sofia University “St. Kliment Ohridski”. He has authored 12 textbooks and 7 electronic teaching aids. Acad. Popchev is the founder of a prestigious scientific school, having supervised **40 Ph.D. students**, while dozens of other scholars received his support for their habilitation. He holds the title of *Doctor Honoris Causa* from several universities.

In 2021, he was awarded the **Order of Saints Cyril and Methodius with Necklace**, the highest state honor for significant contributions to science. He is a recipient of numerous prestigious awards:

- The BAS and Sofia University Award (1977) for the control of mobile objects (including 20 inventions for unmanned vehicles);
- The Award for the monograph “Decentralized Systems” (1990);
- Multiple Ministry of Education and Science’s awards for informatics and technical sciences.

At the age of 90, Academician Popchev remains an active visionary whose legacy is measured not only in publications and medals but in the thousands of students and doctoral candidates who continue to develop his ideas across the globe.

*With profound respect, we wish him good health, longevity,
an indomitable spirit, and boundless vitality.*

Happy anniversary!