

**Research Scientist**

**MIODRAG M. ĆURČIN**

**BSc Eng, MSc Aeronautics, PhD Missile G&C**

**Retired Colonel of Serbian Army**



## **CURRICULUM VITAE**

- Born** May 15<sup>th</sup> 1951. in Zrenjanin, Serbia.
- Nationality** Serbian.
- Education**
1. 1976. Bachelor of Science in Engineering, Faculty of Mechanical Engineering – Department for Ballistics, Belgrade University (Thesis: Analysis and Performance Calculation of the HOT Anti Tank Missile).
  2. 1977. Military School for Technical Officers
  3. 1984. Master of Science, College of Aeronautics - Department of Aerodynamics, Cranfield Institute of Technology, England (Thesis: Influence of Turbulent Wind on the Dispersion of Unguided Missile).
  4. 2006. Doctor of Technical Science, Faculty of Mechanical Engineering on Belgrade University (Thesis: Guidance Law Synthesis for a Missile with Variable Dynamic Parameters and Stochastic Disturbances in Flight).
- Professional experience in field of armament**
- I have been working in Military Technical Institute Belgrade for more then 30 years in the Rocket Division as:
- Chief of the Section for Rocket Aerodynamics and Flight Dynamics
  - Head of the Department for Missile Guidance and Control
  - Head of the Rocket Division
- I finished my work in Military Technical Institute as Assistant Managing Director in colonel rank.
- My field of work is research, development and testing of rocket and missile systems. I was involved in the design and development of four missile systems and one rocket system which are, or were, in service.
- During my work I gained experience in the following fields:
- Design of anti tank missiles
  - Design of AGM missiles and bombs
  - Design of SAM missiles
  - Design of field artillery rockets and ant hail rockets
  - Design of fire control system for artillery self propelled launcher system
  - Aerodynamics of projectiles, rockets guided weapons
  - Trajectory calculation
  - Servo system design and testing
  - Integrated INS/GPS system design and testing
  - Vibration measurement and testing
  - Field flight testing of projectiles, rockets and missiles
  - Wind tunnel testing.
- So far, I have published myself or as a co-author more than hundred articles, technical reports and studies. I am the author or co-author of several software for aerodynamic calculation, which are in use and several other software concerning flight dynamic, guidance and control and fire control system.

During the work I was involved in more than hundreds of measurements (setting the requirements, planning, making data acquisition, data reduction and analyzing).

I am familiar with many kinds of rocket and missile systems in service, and I have some experience in working on international contracts.

**Professional experience in the field of Sound & Vibration measurement and testing**

I have been engaged part time as scientific adviser in "Institute for environmental and health protection" where I have been working in the next fields:

- Sound & Vibration measurement and testing
- Building acoustic
- Vibration Measurements in Predictive Maintenance (Machine-Health Monitoring)
- Development and production of instrumentation for air sampling for determination of air pollution in work and human environment.
- Measurement error analysis, data reduction and measurement uncertainty estimation.

**Professional experience in the field of Computer vision**

I had been employed as senior adviser in Gecko Solutions company where I had been working in the next fields:

- Computer vision,
- Tracking of fast-moving objects.

**Present status**

Since 2020. I have been part time employed as senior adviser in "KOL-15N Engineering" company (<http://kol-15n.com/>) where I am working on:

- Rocket flight dynamics
- Fire control system
- Rocket launcher dynamics

**Educational experience**

I taught Projectile and Missile aerodynamics, Flight dynamics and External ballistics several years on Military academy and School of Mechanical Engineering on Belgrade University. I also taught special subjects in the field of aerodynamics, ballistics, fire control system, measurement in armament, in a few universities abroad.

**Languages**

English (reading, writing, speaking), Russian (reading).

**Computer skills**

Languages: FORTRAN, Matlab, Object Pascal, C, Visual C#  
 Developer systems: Delphi, MS Developer Studio  
 Program Packages (CAD): AutoCad, SolidWorks, Origin, OpenCV...  
 Other: MS Office, Internet ...

**Contact**

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