

11. Az új tudományos eredmények összefoglalása, a munka értékelése tartalmi és módszertani szempontból, esetleges különvélemények, a bírálóbizottság állásfoglalása a nyilvános vitában vitatott kérdésekről:

Summary of new scientific results, review of work:

Bob Struijk's PhD dissertation titled "Influence of the new trends in the economics on the military and industrial robot system design philosophy" is within the scope of the disciplinary requirements of National University of Public Service (NUPS).

The dissertation meets the main requirements of the Doctoral Regulations of the University. The topic of dissertation is actual, scientifically valuable, relevant and mostly timely.

In the dissertation the research findings are presented in four chapters. This structure does not strictly match neither the structure of research sub-goals, nor the structure of research questions. Chapter 1 analyses the position of the robots in the human society, Chapter 2 discusses the economic issues, production development trends of robot applications, Chapter 3 examines the robotics of the new era and Chapter 4 discusses new technological solutions for industrial robots.

The quantity of referenced literature is high, but its quality is low, majority of them is grey or professional literature. From the nearly 110 publications there are only 15 scientific journal papers, four of which are the author's own publications. Half of the journal papers were published before 2000. About ten publications can be classified as scientific books, and half of them are also from before 2000. The format of the items of References is heterogeneous, required elements are missing from a lot of items.

The scientific results and the research goals, fundamental scientific questions are not always in accordance with each other.

The committee declares that Bob Struijk is an expert on his field, he achieved most of the key research targets, proving this way his ability and scientific knowledge to conduct a high level of research project on his own in the scientific fields connected to his dissertation.

The committee accepts the following findings of Bob Struijk as new scientific results:

1. He has proved the viability of new developments like 7 axis articulated robots, 14 axis dual arm robots and Light Weight robots as they create new growth areas within the Product Life Cycle.

2. He has designed a framework, an „Automation Matrix” for industrial robots to understand their evolution and he has systematized them according to production flexibility and assembly complexity. It highlights the emergence of a whole new sector for industrial robots.

3. Through the Military Robotics Driver Matrix he has developed a workable classification for military robots that can be used for trend evaluation, limits evaluation and can be applied in further academic research surrounding the topic.