Dipl.Ing. Dr.techn. Adrijana Car  
Professor (FH) in Geoinformatics  
Engineering IT – Geoinformation and Environment, Carinthia University of Applied Sciences (CUAS)  
Europa Str. 4, 9500 Villach, Austria  
email: [car@cuas.at](mailto:car@cuas.at) phone office: +43 5 90500-2213   
<https://orcid.org/0000-0001-9737-8664>

To:

Ministry of Scientific and Technological Development and Higher Education,   
Republic of Srpska Government

**Letter of Recommendation in support of the proposal   
“Designing models and algorithms of** artificial **intelligence for solving hard combinatorial optimization problems ”   
of the Faculty of Natural Sciences and Mathematics, University of Banja Luka,   
coordinated by Dr. Marko Đukanović**

To whom this may concern,

I became familiar with Dr. Milana Grbić, her team, and their research activities from a joint Erasmus+ ICM 2020 academic cooperation project between Carinthia University of Applied Sciences (CUAS), Austria, and the University of Banja Luka (UBL), Bosnia and Herzegovina. This project took place between 2020 and 2023 and resulted in numerous academic mobilities at faculty, student, and administration level. The most recent exchange took place in the summer semester of 2023 including mobility between CUAS and UBL of one student, two administrators and four faculty members.

As professor of Geoinformatics at CUAS and of the Erasmus+ ICM 2020 project team member I was responsible for the pedagogical supervision and curriculum related questions such as teaching content for incoming academic staff and selection of courses to tailor individual student learning agreements. In this capacity, I closely cooperated with Dr. Milana Grbić.

In May 2023 I visited the UBL together with my colleague Dr. Gerald Gruber, professor of Mathematics. We gave a mini workshop on GIS and network analysis for graduate and undergraduate students and interdisciplinary faculty members of UBL. Dr. Grbić was our “chief” host; and she did a superb organization job. Colleagues from UBL visited CUAS as well and Dr. Grbić and Dr. Djukanović gave talks and workshops on topics of their current research.

We used our visits to intensely explore possibilities of future cooperation between our institutions. We identified common research interests especially in current developments in Data Science, Mathematics and Geoinformatics: methods of machine learning for graph-based modelling and analysis using biological networks and transportation as some application examples. CUAS offers a successful MSc study program in Applied Data Science; hence we explored possibilities of a joint degree in this field, where all our research expertise would make a major contribution.

In our encounters Dr. Grbić and her research group demonstrated a high level of scientific expertise and communicated confidently in an international scientific and academic community. On a personal level I like Dr. Grbić’s professional curiosity and open-mindedness. She is capable of communicating successfully across national borders by understanding cultural differences as positive influences in the international academic workplace – and this is recognizable in her team as well.

Keeping this in mind, we are willing to support this project with participation in joint seminars and staff exchanges.

I therefore strongly recommend the project “Analysis of biological networks using machine learning methods” for the grant of the Ministry of Scientific and Technological Development and Higher Education, Republic of Srpska Government.

If you require any further information or would like to discuss anything in more detail, please feel free to contact me at

[car@cuas.at](mailto:car@cuas.at)

+435905002213

Villach, Austria, 30 November 2023

Dr. Adrijana Car