


Event:  
Date:  
Place:

**ENERGY in BUILDINGS 2024**  
November 22-23, 2024  
Athens, Hellas



#	<b>Aleksandar Andjelkovic</b> PhD, Mechanical Engineer	
Title:	Associate Professor, Director of Energy Innovation Center, Head of Thermal Engineering Chair and Laboratory, Faculty of Technical Sciences, University of Novi Sad, Serbia	
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Presentation title:	<b>Innovative Approaches to Optimizing Indoor Environmental Quality</b>	
<p>The built environment has profound effects on human health and surrounding environment. At their best, our buildings are powerful promoters of health and well-being; however, at their worst, buildings contribute to some of the key health concerns of modern society, from asthma to cancer to obesity. Indoor environmental quality (IEQ) encompasses the conditions inside a building - air quality, lighting, thermal conditions, acoustics - that can have direct or indirect effects on the quality of our living spaces, health, and well-being. Studies have shown that inadequate lighting, thermal conditions and acoustics levels are correlated with adverse health and well-being outcomes and impaired productivity. One of the most common and important issues is that indoor air pollutant levels often surpass outdoor levels. Exposure to elevated pollution concentrations is correlated with impaired productivity and detrimental or even lethal health outcomes. Yet, very little is known about the quality of air that people are exposed to. The problem could be amplified because we cannot always smell or feel the content of the air. Therefore, the task is absolutely essential to provide a real-time solution to have a better understanding of invisible part of the indoor environment which is centered on humans. Through proposed intelligent solution, intention is to collect, process, and understand real-time IEQ data, to enable improved human health and well-being in an energy efficient manner to improve the IEQ performance and quality of life.</p>		
Short CV:		
<p>Associate Professor, researcher and consultant focusing on: IEQ, HVAC systems; energy efficiency; building design, performance and operation; renewable energy; energy audits and management; district heating and cooling systems. Active in ASHRAE, REHVA, IBPSA, and Serbian national HVAC society. Published more than 100 papers/articles and made more than 150 presentations on IEQ, HVAC energy efficiency, sustainability, and renewable energy throughout the world.</p>		

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CV:

Associate Professor, researcher and independent consultant focusing on: IEQ, HVAC systems; energy efficiency; building design, performance and operation; renewable energy; energy audits and management; district heating and cooling systems. A highly motivated mechanical engineer with an expertise in HVAC&R systems and renewable energy with a broad and acute interest in developing energy efficient buildings. Collaboration with experienced scientists from prestigious universities resulted in developing new skills such as performing research independently, as well as strong writing/publishing and teaching skills. Active in ASHRAE, IBPSA, and reviewer of three international and national journals. Published more than 100 papers/articles and made more than 150 presentations on IEQ, HVAC energy efficiency, sustainability, and renewable energy throughout the world.

### MEMBERSHIP/POSITIONS OF RESPONSIBILITY

- ASHRAE REGION XIV RVC for Research Promotion
- Member of ASHARE
- Member of Society for HVAC&R of Serbia
- Member of IBPSA
- Member of Steering committee of Union of Mechanical and Electrical Engineers and Technicians of Serbia
- Member of Steering committee of Serbian HVAC Society
- Member of Organizing Committee of International Congress on Heating, Refrigerating and Air-Conditioning, Belgrade, Serbia (2012 - )
- Editorial board member of Energy Sources, Part A: Recovery, Utilization and Environmental Effects, Taylor & Francis
- Editorial board member of International Journal of Sustainable Energy, Taylor & Francis

### SELLECTED PAPERS IN INTERNATIONAL PEER REVIEW JOURNALS

1. (M21a) Ž.D. Vlaović, B.L. Stepanov, A.S. Anđelković, V.M. Rajs, Z.M. Čepić, M.A. Tomić, Mapping energy sustainability using the Kohonen self-organizing maps-Case study, Journal of Cleaner Production 412, 137351, 2023
2. (M21a) S. Dubljević, B. Tepavčević, B. Markoski, A.S. Anđelković, Computational BIM tool for automated LEED certification process, Energy and Buildings 292, 113168, 2023
3. (M22) Manojlović, A., Medar, O., Anđelković, A., Tomić, M., Environmental impact assessment of the electric vehicles: A case study, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 45:1, 1007-1016, 2023
4. (M21a) A Čulić, S Nižetić, P Šolić, T Perković, A Anđelković, V Čongradac, Investigation of personal thermal comfort in office building by implementation of smart bracelet: A case study, Energy 260, 124973, 2022
5. (M22) Ignjatović, M., Blagojević, B., Stojiljković, M., Anđelković, A., Blagojević, M., Mitrović, D., Energy performance of air-conditioned buildings based on short-term weather forecast, Science and Technology for the Built Environment 28 (1), 2022, pages 55-72
6. (M22) Editor of SI: IS Dobosi, A Andjelkovic, CLIMA 2019: 13th REHVA World Congress, Science and Technology for the Built Environment 28 (1), 1-1, 2022
7. (M21a) Mujan, I., Licina, D., Kljajić, M., Čulić, A., Anđelković, A., Development of indoor environmental quality index using a low-cost monitoring platform, Journal of Cleaner Production 312, 2021, 127846
8. (M22) Anđelković, A., Kljajić, M., Macura, D., Munćan, V., Mujan, I., Tomić, M., Vlaović, Z., Stepanov, B., Building Energy Performance Certificate—A Relevant Indicator of Actual Energy Consumption and Savings? Energies 14 (12), 2021, 3455
9. (M21a) Demanega, I., Mujan, I., Singer, B., Anđelković, A., Babich, F., Licina, D., Performance assessment of low-cost environmental monitors and single sensors under variable indoor air quality and thermal conditions, Building and Environment 187, 2021, 107415
10. (M21a) Mujan, I., Anđelković, A., Munćan, V., Kljajić, M., Ružić, D., Influence of indoor environmental quality on human health and productivity - A review, Journal of Cleaner Production, Volume 217, 2019, pages 646-657