CURRICULUM VITAE

Proposed position in assignment:

1. Family name: Batas Bjelić

2. First names: Ilija

3. Date of birth: 21.11.1982.

4. Nationality: Republic of Serbia

5. Civil status: Married (two children)

6. Education:

Institution	University of Belgrade, School of Electrical Engineering
Date: from (mm/yy) to (mm/yy):	12/2010 to 04/2016
Degree(s) or Diploma(s) obtained:	PhD in Electrical Engineering
Institution	University of Belgrade, School of Electrical Engineering
Date: from (mm/yy) to (mm/yy):	10/2001 to 10/2008
Degree(s) or Diploma(s) obtained:	B.Sc. in Electrical Engineering

7. Language skills: (Mark 1 to 5 for competence, 5 being the highest)

Language	Reading	Speaking	Writing
Serbo-Croatian	Mother tongue		
English	5	5	5
German	3	3	3

8. Memberhip:IEEE Power and Energy

9. Other skills (e.g. computer literacy, etc.): Excel, HOMER, EnergyPlan, FORECAST, GENOPT, EnergyPRO

10. Present position:Reseach associate at the Institute of Technical Sciences of Serbia Academy of Sciences and Arts

11. Years within the firm: 3

12. Key qualifications (relevant to the programme):

- The highest level qualification is modeling of sustainable national energy systems, suitable for the investment decision making, on set of optimal technical measures (formulated as energy policy narative) including energy efficiency and renewable energy.
- Hourly level modeling variable renewable energy sources (wind, solar, hydro) to the national energy system integration
- Feasibility studies for renewable heating and cooling grids
- Knowledge of the process of acession of Republic of Serbia to the EU (Chapter 15. Energy)

13. Professional Experience Record:

Date:	04/2019 to 10/2019
Location:	Western Balkan
Company:	Institute of Technical Sciences of the Serbian Academy of Sciences and Arts
Position:	Expert
Description:	Scale-up of Renewable Energy for power generation in the Western Balkan countries (project funded by the World Bank) Main objective of the project was to assess the market mechanisms for supporting the development of renewable energy projects after the end of feed-in support mechanism in Western Balkan. Besides the desk research, numerous interviews have been conducted with various (regulatory, developers, utilities, banks, market operators) stakeholders for deep understanding of the situation regarding renewable energy and different (sometimes confronting) positions. The results include analysis of applicability of the auctions, premiums, contract for difference, quotas and other mechanisms. Acted as a task leader for Serbia and Bosnia and Herzegovina.

Date:	12/2019 to present
Location:	Serbia
Company:	Institute of Technical Sciences of the Serbian Academy of Sciences and Arts
Position:	Research associate
Description:	Future photovoltaic energy systems (permanent position). The research activities include various topics from physical aspect of photovoltaic conversion, as well as technological aspects of fabrication, and their usage from the energy system point of view on the various time and space scale. Practical part of the research includes photovoltaic cell characterization laboratory.

Date:	2/2011 to 11/2018
Location:	Serbia
Company:	University of Belgrade, School of Electrical Engineering
Position:	Project leader assistant
Description:	Design of Smartgrid model to be applied in Republic of Serbia (funded by the Ministry of Science of the Republic of Serbia). Project research objectives includeddesign of smart grids with development of integrated system for analysis, tracking and optimization of electric energy consumption, development of methodology for smart metering and smart grid systems (SM&SG) implementation in distribution networks in Serbia, development of methodology and software applications for processing information derived from these systems in order to improve distribution networks operation and planning, analysis of possibility for use SM&SG for acquiring data from other systems in order to improve distribution networks operation and planning of their development, developing system for acquiring data from switching equipment, improvement of SCADA systems for medium voltage network operation management as well as software applications which are used for data processing in order to improve network operation and to evaluate effects of network management. Project results included new equipment for data acquisition, data transferring and data processing developed for implementation in SM&SG and in SCADA systems for medium voltage network operation management, new methods and corresponding software applications for processing information derived from these systems for improvement of distribution networks operation, and planning of their development with special respect to distributed power generation which appears more often in distributive networks as well as possibility of using data from other systems.

Date:	12/2015 to 11/2018
Location:	Serbia
Company:	University of Belgrade, School of Electrical Engineering

Position:	Expert and workpackage leader assistant
Description:	Market uptake of small modular district heating and cooling grids for communities (funded by the Horizon 2020 INEA EU). The objective of project was to support the implementation of small modular renewable heating and cooling grids for communities in South-Eastern Europe. This has been achieved through knowledge transfer and mutual activities of partners in countries where renewable district heating and cooling exists -Austria, Denmark, and Germany, and in countries which have less developed sectors, including (Croatia, Slovenia, Macedonia, Serbia, and Bosnia-Herzegovina. Activities performed included techno-economic assessments, measures to stimulate the interest of communities and citizens to set-up renewable district heating systems, as well as the capacity building about financing and business models. Acted as a work package leader assistant to initiate a new small renewable district heating and cooling grid in the city of Sabac (Serbia).www.coolheating.eu

Date:	9/2018 to 8/2019
Location:	Serbia
Company:	University of Belgrade, School of Electrical Engineering
Position:	Research assistant – assistant to project leader for Serbia
Description:	Switching to district heating systems for diversification of supply, reducing gas dependency and increasing the use of locally available renewable sources (funded by the EU Program Interreg Danube) The main idea of this seed money project was to help the uptake of renewable district heating systems based on biomass and solar in the South-east part of Danube region, that way switching from the currently used fossil fuel-based heating systems. Furthermore, main project aimed to promote and implement biomass and solar based district heating systems in target cities in Romania, Croatia and Serbia, starting from public buildings representing local demonstration projects. Acted as expert for technology switch options techno-economic evaluation under local circumstances. Furthermore, the research of smart energy systems advances

Date:	2/2011 to 11/2018
Location:	Serbia
Company:	University of Belgrade, School of Electrical Engineering
Position:	Reseach assistant - assistant to project leader for Serbia
Description:	Sustainable municipal energy policy (funded by the EU Danube Region Energy Start programme) Project aimed to identify the current state of energy planning and use of strategic energy plans in municipalities. Furthermore, it looked into the current state of the implementation of ISO 50001 and energy management in municipalities across the Danube region. The project builds on an idea of bringing together European institutions (mainly from Eastern Europe), stakeholders and cities to address challenges and opportunities for transition to environmentally sustainable, cost-effective and energy efficient management of municipality's property as the current situation is insufficient and leads to energy wastage and high emissions of greenhouse gases. Acted as expert to evaluate the development of energy planning in Serbian municipalities and capacity to implement energy management standards.

Date:	3/2020 to 5/2020
Location:	Serbia
Company:	UNDP Serbia
Position:	Expert
Description:	Smart municipal energy planning to mitigate climate change in the city ofParaćin. The aim of the project was to include climate component into existing municipal energy plans. The tasks included desk research on climate energy planning at national and local levels, with initial conditions assessment, assessment of catastrophic events in the municipality, interviews with stakeholders and review of methods for adaptation planning.

Date:	10/2012 to 12/2012
Location:	Germany
Company:	DeutscherAkademischerAustauschDienst
Position:	Visiting researcher
Description:	End-use modeling for Smartgrid of household sector in Serbia up to 2030 The reserach included curent consuption dissagregation per sector, consumption forecast to 2030, consumption dissagregation per technology, policy forumlation for tecnologies difusion to meet EU2020goals.

14. Others:

15. Publications:

1) B. Bjelić, "Simulation-based optimization of sustainable energy systems," PhD, School of Electrical Engineering, University of Belgrade, Belgrade, 2016.
2) Batas Bjelić, N. Rajaković, and N. Duić, "Smart Municipal Energy Grid within Electricity Market," in *Energy*, ed, Article accepted for publication 30 Jun 2017.
3) Batas Bjelić, N. Rajaković, and P. Đukić, "The impact of total sustainable national energy system cost structure change to national budget," presented at the Energetika, Zlatibor, 2017.
4) B. Bjelić, J. Krstivojević, M. Žarković, N. Rajaković, A. Pfeifer, M. Pavičević, G. Krajačić, and N. Duić, "Transition to Active Distribution Network Models with Renewable Energy Sources, Demand Response and Smart Inverters.," presented at the Proceedings of the 12th Conference on Sustainable Development of Energy, Water, and Environment Systems, SDEWES2017.0089, Dubrovnik, 2017.
5) N. Rajaković and I. B. Bjelić, "Planning of the optimal energy mix for smart cities," presented at the PowerTech 2017, Manchester 2017.
6) D. Rutz, R. Janssen, M. Hofmeister, P. A. Soerensen, C. Doczekal, R. Zweiler, R. Sunko, B. Sunko, N. Markovska, M. Karanfilovska, N. Rajakovic, I. B. Bjelic, A. Kazagic, A. Ademovic-Tahirovic, S. Jerotic, E. Fejzovic, M. Mataradzija, and T. Zrinski, "Small, Modular and Renewable District Heating & Cooling Grids For Communities in South-Eastern Europe," presented at the EUBCE 2016 - 24th European Biomass Conference and Exhibition, Amsterdam, 2016.
7) Batas-Bjelic, N. Rajakovic, and N. Duic, "Smart municipal energy grid within electricity market," presented at the Proceedings of the 2nd South East European Conference on Sustainable Development of Energy, Water and Environment Systems, Piran, 2016.
8) Batas Bjelić, N. Rajaković, G. Krajačić, and N. Duić, "Two methods for decreasing the flexibility gap in national energy systems," *Energy,* vol. 115, pp. 1701-1709, 2016.
9) E. S. Hakala and I. B. Bjelic, "Leapfrogging potential for sustainable energy transition in Serbia," *International Journal of Energy Sector Management,* vol. 10, pp. 381-401, 2016.
10) K. K. Markova, I. B. Bijelic, G. Dobric, and N. Rajakovic, "Investment Decisions in the Photovoltaic Power Plant in Terms of the Market Bearing in Mind the Physical Limitations of the Transmission Network," presented at the INDEL 2016, Banja Luka, 2016.
11) Batas-Bjelic and N. Rajakovic, "More resillient smart municipal energy grids," presented at the MEDPOWER, Belgrade, 2016.
12) Pfeifer, I. Batas-Bjelic, L. Perkovic, N. Duic, and N. Rajakovic, "Influence of market coupling with large energy markets on the operation of the Serbian energy system," presented at the MEDPOWER, Belgrade, 2016.
13) Batas-Bjelic, N. Rajakovic, B. Cosic, and N. Duic, "A realistic EU vision of a lignite-based energy system in transition: Case study of Serbia," *Thermal Science,* vol. 19, pp. 371-382, 2015.
14) Nikola RAJAKOVIĆ, Zoran STEVIĆ, and Ilija BATAS BJELIĆ, "The need for electricity storage and variable renewable energy sources in Serbia," presented at the Third International Conference on electrical power renewable sources, Belgrade, 2015.
15) Ilija Batas Bjelić and Nikola Rajaković, "The contribution of plug in electric vehicles and renewable energy sources achieving the national energy efficiency goals," presented at the ENEF 2015, Banja Luka, 2015.
16) Batas Bjelić and N. Rajaković, "Simulation-based optimization of sustainable national energy systems," *Energy,* vol. 91, pp. 1087-1098, 2015.
17) Batas Bjelic, N. Rajaković, G. Krajačić, and N. Duić, "Decreasing the flexibility gap: transformation towards smart energy system in Serbia," in *SDEWES*, Dubrovnik, 2015.
18) S. M. Protic and I. Batas Bjelic, "Rural electrification, legalislation and its impact on minorities: case study Serbia," in *13. Symposium Energieinnovation*, Graz/Austria, 2014, pp. 275-276.
19) E. Hakala and I. Batas Bjelic, "Sustainable energy production in Serbia – leapfrogging or lagging behind?," in *CBEES*, Stockholm, Sweden, 2014.
20) Batas Bjelic and R. M. Ciric, "Optimal distributed generation planning at a local level – A review of Serbian renewable energy development," *Renewable and Sustainable Energy Reviews,* vol. 39, pp. 79-86, 2014.
21) R. Batas Bjelić, I. A. Škokljev, T. Pukšec, G. Krajačić, and N. Duić, "Integrating the flexibility of the average Serbian consumer as a virtual storage option into the planning of energy systems," *Thermal Science,* vol. 18, pp. 743-754, 2014.
22) Ilija Batas Bjelić, Nikola Rajaković, Goran Krajačić, and N. Duić, "Valuing the moderation options in Serbia for higher wind

penetrations," presented at the SDEWES, Venice-Istanbul, 2014.
23) B. Bjelic and N. Rajakovic, "Total Costs Minimization by Using Synergy Effect Among EU 2020 Goals," in *Proceedings of the 1st South East Europe Conference on Sustainable Development of Energy, Water and Environment Systems*, Ohrid, Macedonia, 2014, p. 167.
24) V. Šiljkut, N. Rajaković, M. Dilparić, and I. Batas Bijelić, "Determination of specific space cooling capacity by demand side management program modeling," in *Conference on Electricity Distribution of Serbia*, Vrnjacka Banja, 2014.
25) Batas Bjelić, N. Rajaković, B. Ćosić, and N. Duić, "Optimal wind power generation in existing Serbian power system," in *SDEWES*, Ohrid, 2012, p. 90.
26) Batas Bjelic, N. Rajakovic, R. Elsland, and W. Eichhammer, "Improvements of Serbian-NEEAP based on analysis of residential electrIcity demand until 2030," in *IEWT*, Vienna, 2013, p. 1.
27) Ćosić, G. Krajačić, N. Markovska, I. Batas Bjelić, N. Rajaković, and N. Duić, "100% Renewable Energy Solutions for Regions: the Case of South East Europe " *Energija, ekologija, ekonomija* vol. 15, pp. 227-235, 2013.
28) N. Rajaković, I. Babić, and I. Batas Bjelić, "Development of distributed generation in Serbia caused by price of electricity - in Serbian language," in *CIGRE*, Zlatibor, 2013, pp. 1-8.
29) Batas Bjelić, N. Rajaković, B. Ćosić, and N. Duić, "Increasing wind power penetration into the existing Serbian energy system," *Energy,* vol. 57, pp. 30-37, 2013.
30) Batas Bjelic, I. Skokljev, T. Pukšec, G. Krajačić, and N. Duic, "Integrating consumer flexibility as virtual storage option in energy system planning," in *SDEWES*, Dubrovnik, 2013, p. 596.
31) Batas Bjelić, D. Šošić, and N. Rajaković, "Energy loss in distribution network related to placement of solar photovoltaic systems," in *The Second International Conference on Renewable Electrical Power Sources*, Belgrade, 2013, p. 47.
32) Batas Bjelić, N. Rajaković, B. Ćosić, and N. Duić, "Feasibility of Serbian energy policy in reaching EU 2020 goals," in *SDEWES*, Dubrovnik, 2013, p. 435.
33) Ćosić, T. Maršić, G. Krajačić, N. Markovska, I. Batas Bjelić, D.-I. Gota, Z. Hasović, N. Rajaković, and N. Duić, "The Effect of Regionally Integrated Energy Systems on CO2 Emissions Reduction and Wind Integration: the Case of South East Europe," in *6th International conference on sustainable Energy and Environmental Protection*, Maribor, 2013, pp. 161-169.
34) B. Ćosić, T. Maršić, G. Krajačić, N. Markovska, I. B. Bjelic, D.-I. Gota, Z. Hasović, N. Rajaković, and N. Duić, "THE EFFECT OF REGIONALLY INTEGRATED ENERGY SYSTEMS ON CO2 EMISSIONS REDUCTION AND WIND INTEGRATION: THE CASE OF SOUTH EAST EUROPE," presented at the Proceedings of SEEP 2013.
35) B. Ćosić, G. Krajačić, N. Markovska, N. Duić, and I. Batas Bjelić, "Regional Approach for a 100 % Renewable Energy Systems : The Case of South East Europe," in *SDEWES*, Ohrid, 2012, p. 182.
36) N. Rajaković and I. Batas Bjelić, "The impact of Serbian national energy efficiency action plan (NEEAP) on EU2020 goals," in *INDEL*, Banja Luka, 2012, pp. 268-270.
37) Batas-Bjelić and I. Škokljev, "Deregulated Serbian electricity market optimal dispatch with congestion constraints," *Serbian Journal of Electrical Engineering,* vol. 8, pp. 325-331, 2011.
38) N. Rajaković and I. Batas Bjelić, "Optimal renewable sources share in final energy consumption of Republic Serbia (in Serbian)," presented at the First renewable energy sources conference, Belgrade, 2011.
39) Batas Bjelic and N. Rajakovic, "An overview of Serbian energy Strategy development path 2015 with comparison of German and U.S. renewable energy policies - In Serban language," in *Second regional conference industrial energy and environmental protection, Zlatibor*, 2010, pp. 1-8.

I, the undersigned, certify that to the best of my knowledge, these data correctly describe me, my qualifications and my experience.

Ilija Batas Bjelic		17.VI 2022
Name of expert	Signature	Date
Name of authorised representative	Signature	Date of the firm