# Curriculum Vitae


# Nebojsa Jovic

***Junior study engineer***

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**Year of Birth:** 1977
**Place of Birth:** Belgrade, Serbia

## SUMMARY OF QUALIFICATIONS

**2003** *Graduate Electrical Engineer*
Faculty of Electrical Engineering, University of Belgrade, Serbia

## KEY QUALIFICATION

- Transmission and Distribution network planning and exploitation
  - Load flow analyses (steady state, contingency…) of transmission network / DACF
  - Voltage profile and stability analyses
  - Reactive power compensation and control
  - Fault analyses, protection devices settings, switching analyses
  - Dynamic modelling and stability analyses
  - Regional development of interconnections and electricity exchanges
  - Reliability evaluation
- Generation (Hydro, Thermal, Nuclear, Renewable)
  - Installation and connection of power plant to transmission network
  - Feasibility and justification studies
- Electricity market and economy

## SPECIAL SKILLS

- Languages
  - English (very good), German (basic)
- Professional software tools
  - PTI PSS/E (load flow, fault analyses, dynamic analyses etc)
  - PSA, TPC Tool (load flow, network transfer capacities evaluation, PTDF/MF)
  - MAPINFO (GIS in electric power systems)
- Microsoft Office Applications (Word, Excel, Access, Power point, Visio)
- Programming (SQL, ASP.NET, C#, HTML)

## PROFESSIONAL EXPERIENCE

**2007 – to present** *Study engineer - junior*
Electricity Coordinating Center Ltd.

**2005 – 2007** *Dispatcher in regional control center*
Electricity Coordinating Center Ltd.

**2003 – 2005** *Database administrator/Sales engineer*
Energozastita Ltd

## SELECTED REFERENCES

**Projects in progress**

**Technical parameters Calculation software for 2009/2010 SEE Dry-run of Coordinated flow-based Auctions**
*Team member*
*for: KfW bank (Germany)*
The extension of Merlin/PSA softwares for Technical Parameters Calculation for dry-run of flow-based Coordinated Auctions in South-east Europe, covering the needs of SEE TSOs.
*Tasks performed by author: algorithm and specification, software testing and presentation, training of users*

**Development of transmission and distribution network of Niksic till 2025**
*Task leader*
*for: EPCG, PRENOS*
Detailed analyses of civil and economical development plans (data collection and analyses, load flow analyses (steady state, voltage profile, contingency), fault analyses, economical appraisal, network development and planning) in Niksic (large industrial and second largest city in Montenegro) and development plan for transmission and distribution network on 110 kV, 35 kV and 10 kV voltage network for next five years (2010-2014) and vision till 2025.
*Tasks performed by author: data collection and analyses, consumption forecast, load flow analyses, voltage profile and power losses analyses, investment analyses, transmission and distribution network development planning*

***Cost/Benefit Analysis of the Proposed Solution of Connection of SS 220/110 kV Bistrica (150 MVA) into Serbian Grid***
*Task leader*
*for: MVV-decon (Germany)*
*Purpose of this Cost/Benefit Analysis is to prove integrity of constructing new substation 220/110 kV Bistrica (150 MVA) concept from the network improvements point of view (security, reliability, decreasing transmission losses, elimination firm connection etc.) and also from profitability of investment point of view by evaluation of future benefits which can be expressed as potential income.*
*Tasks performed by author: load flow analyses, voltage profile and power losses analyses, cost-benefit analyses*

**2009 Black Sea Regional Transmission System planning project - Dynamic model development and stability evaluation Network capacities evaluation**
*Model development consultant and model integrator*
*for: USEA, USAID*
Objective of this study is to collect national inputs and the development plans for building of regional transmission model in PSS/E that will be used for Power transmission system analysis in field of dynamics and to evaluate system stability. The following studies have been performed: Data collection and analyses, Load flow analyses, Voltage profile and stability analyses, Maximum exchange capabilities, Development plan evaluation, Dynamic model and data base building.
*Tasks performed by author: data collection and analyses, load flow analyses, voltage profile and stability*

*analyses, maximum exchange capabilities, development plan evaluation*

**Study of the 400 kV OHL Serbia – Romania**
*Team memeber*
*for: MVV-decon (Germany)*
Feasibility study on connection Serbia and Romania with new 400 kV tie-line, which included following tasks: load flow analyses, security assessment, TTC calculation and cost-benefit analysis.
*Tasks performed by author: load flow, transmission capacity assessment*

**Uncertainties in the SEE Transmission Network and Evaluation of Risk for Future Infrastructure Investments**
*Team Memeber*
*client: USAID, USEA*
In this study analyses of uncertainties in investments in SEE have been performed. Influence of selected major investments in SEE on transmission network has been performed. In addition selected major changes in balances of SEE countries and their influence on transmission network have been analyzed also. The main result is ranking of weak points in SEE transmission network.
*Tasks performed by author: load flow analyses, influence of major investments in SEE on transmission network analyses*

**Connection of the TPP Porto Romano to the EPS of Albania**
*Load Flow Analyses, NTC*
*for: RWE, Germany*
Technical Parameters Calculation software for flow-based Coordinated Auctions in Central-East Europe: The aim of the study is to examine the possibility of constructing the TPP Porto Romano, which is to be connected to the 400 kV transmission network of Albania, considering the state of 400, 220 and 110 kV network in future period in year 2016 and to provide the best possible solution for its connection, as well as to check the transfer possibilities of electric power from TPP Porto Romano to neighbouring EPSs (Montenegro, Serbia, Macedonia, Greece, Italy) for different scenarios.
*Tasks performed by author: load flow, transmission capacity assessment*

**CAO - Freising - IT system for coordinated flow based allocation and related services**
**EKC: Technical Parameters Calculation PTDF/MF**
*Team member*
*for: Riecado (Siemens, CEE CAO Freisig/Munich, Germany)*
Technical Parameters Calculation software for flow-based Coordinated Auctions in Central-East Europe: validation and merging of network models, load flow, security analyses, calculation of PTDF factors and maximum Flow capacities, preparation of technical parameters as auction input for yearly, monthly and daily auctions.
*Tasks performed by author: algorithm and specification, software testing and presentation, training of users*

**Generation surplus projections in Eastern Europe (EE) region and electricity market scenarios in the period 2008 – 2020, [Updated data and scenarios]**
*Team member*
*for: TERNA, Italy*
The objective of the study is to analyze different scenarios of generation surplus in SEE/EE region and features of electricity market development, as well as to analyze the transmission network evolution in the period under analysis (2008-2020). This Study presents an Update of similar SEE Market Study performed in 2007, with extended time horizon (until 2020), scenarios (optimistic, besides pessimistic and realistic) and countries (Ukraine, Moldova, Hungary).
*Tasks performed by author: data collection, surplus/deficit analyses, load flow, transmission capacity assessment*

**Connection of the TPP Tuzla G8 (450W) to the EPS of Bosnia and Herzegovina**
*Team member*
*for: ESOTECH, Slovenia, EPBIH*

Study on connection of the new production unit G7 in TPP Tuzla. Following design studies have been provided: Load flow studies, fault studies, transient stability studies, frequency response studies, auxiliary supply analyses, techno-economical aspects.
*Tasks performed by author: load flow analyses*

**Connection of the TPP Kakanj G8 (350MVA) to the EPS of Bosnia and Herzegovina**
*Team member*
*for: IBE, Slovenia*
Study on connection of the new production unit G8 in TPP Kakanj. The following design studies have been pro-vided: Load flow studies, fault studies, transient stability studies, frequency response studies, auxiliary supply analyses, techno-economical aspects.
*Tasks performed by author: load flow analyses*

**Prefeasibility Study of Connection of the TPP Banovići to the EPS of Bosnia&Herzegovina**
*Team member*
*for: IBE, Slovenia*
The scope of the Study is connection of the new TPP Banovići (350MVA/300MW) to the transmission grid of Bosnia and Herzegovina taking into consideration transmission development plans of 400, 220 and 110 kV network until 2020. The Study investigates all possible variants of connection and provides the best solution for it. It was necessary to confirm that transmission possibilities of Serbian network shall not be endangered and to give solution for safe and qualitative electricity delivery of whole produced energy in any moment. Taking into consideration maximum engagement of TPP Dragacevo, techno economical analyses, for all potential variants are performed. In other words, estimation of basic investments that depends on variants of connection of TPP is provided. The following design studies have been provided: Load flow studies, auxiliary supply analyses and techno-economical aspects.
*Tasks performed by author: load flow analyses, analysis of techno-economic aspects*

**2008** **Prefeasibility Study of Connection of the TPP Dragačevo to the EPS of Serbia**
*Team Member*
*for: Mineral Investments*
The scope of the Study is connection of the new TPP Dragačevo (146MVA/132MW) to the transmission grid of Serbia taking into consideration transmission development plans of 400, 220 and 110 kV network until 2016. The Study investigates all possible variants of connection and provides the best solution for it. It was necessary to confirm that transmission possibilities of Serbian network shall not be endangered and to give solution for safe and qualitative electricity delivery of whole produced energy in any moment. Taking into consideration maximum engagement of TPP Dragacevo, techno economical analyses, for all potential variants are performed. In other words, estimation of basic investments that depends on variants of connection of TPP is provided. The following design studies have been provided: Load flow studies, auxiliary supply analyses and techno-economical aspects.
*Tasks performed by author: load flow analyses*

**Feasibility study for new under sea HVDC interconnection between Italy and Montenegro; Short Circuit, Dynamic Stability analyses, Reliabilty assessment**
*Network analyst (short circuit and dynamic stability analyses, reliabilty assessment)*
*for: EBRD, EPCG , Electric Power Utility of Montenegro, Podgorica, Montenegro*
Objective of this study is to review current and future development stages of transmission network in SEE, from short circuit levels and voltage and dynamic stability point of view, and to evaluate security of supply (reliabilty indices) and feasibility of new under sea HVDC interconnection between Italy and Montenegro.
*Tasks performed by author: transient stability analyses, transmission system reliability assessment*

**Feasibility study for new under sea HVDC interconnection between Italy and Montenegro; Static security analyses**
*Network analyst (steady state load flow, static security analyses)*
*for: TERNA, EPCG , Electric Power Utility of Montenegro, Podgorica, Montenegro*
Objective of this study is to review current and future development stages of transmission network in SEE and to evaluate security of supply and feasibility of new under sea HVDC interconnection between Italy and Montenegro.

*Tasks performed by author: load flow analyses*

**Review of electricity supply, demand and transmission projections in South East Europe in the period 2008-2020**
Network analyst
*for: ČEZ, a.s. DUHOVÁ 2/1444, Prague, Czech Republic*
The objective of this study is to analyse different scenarios of generation surplus in SEE region and features of electricity market development. Also, the study will deal with analyses of SEE transmission network evolution in the period under analysis.
*Tasks performed by author: data collection, surplus/deficit analyses, load flow, transmission capacity assessment*

**Electricity market overview**
Network analyst
*for: Delloite, Makenzijeva 24, 11000 Belgrade, Serbia*
Electricity balances, production, transmission and distribution network, consumption, market players, actual and future projects overview in Serbia, Bosnia and Herzegovina and Slovenia
*Tasks performed by author: data collection, surplus/deficit analyses, overview of electricity market and potential investments in power sector*

**2007** **Generation surplus projection in South-east Europe(SEE) region and electricity market scenarios in the period 2006 – 2016**
*Network Analyst, Calculation Expert*
*for: TERNA*
The objective of this study is to analyse different scenarios of generation surplus in SEE region and features of electricity market development, evolution of SEE transmission network and evaluation of potential possibility of the electricity trade with Italian electricity market
*Tasks performed by author: data collection, surplus/deficit analyses, load flow, transmission capacity assessment*

**2005 - 2009** **DACF procedure: Day Ahead Congestion Forecast**
*Team member (2005-2009)*
*for: EPS/EMS (2005-2007), EPCG/Prenos AD (2005-), ESM/MEPSO (2005-)*
Day Ahead Congestion Forecast procedure, for the needs of transmission systems in JIEL/SMM block.
*Tasks performed by author: Producing the day-ahead forecast models; producing the day-after snapshot models; validation of models, models merging, load flow and contingency analyses; development of DACF application software*

## PUBLICATIONS

**Selected journal and conference papers:**

**2009** **Analysis of the development of pgeneration, consumption and transmission in South-eastern Europe in period 2009-2020**
N. Jović, Z. Vujasinović, M. Vuković, T. Martinović
CIGRE Srbija, 2009

**Coordinated auctions of transmission capacity in the regions of Central-eastern and South-eastern Europe. Software project for Auctioning Office in Munich/Freising**
Z. Vujasinović, S.Mijailović, N. Jović, M. Čokorilo, B.Ivanović
CIGRE Srbija, CIGRE Crna Gora; 2009