

Tomo Martinovic

Study Engineer - junior

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Year of Birth: 1977
Place of Birth: Vrbas, Serbia



SUMMARY OF QUALIFICATIONS

2004 *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...)
 - Voltage profile and stability analyses
 - Reactive power compensation and control
 - Fault analyses, protection devices settings, switching analyses
 - Dynamic modeling and stability analyses
 - Regional development of interconnections and electricity exchanges
 - Reliability evaluation
- ☞ Generation (Hydro, Thermal, Nuclear, Renewables)
 - Installation and connection of power plant to transmission network
 - Feasibility and justification studies
- ☞ Load flow & static security analyses of transmission network / DACF
- ☞ Working on number of electricity market studies
- ☞ Congestion management; / NTC calculation and allocation / participation in coordinated flow-based auctions design for SEE region
- ☞ Balance management / regional platform for balance energy exchange; BETSEE

SPECIAL SKILLS

- ☞ Languages
 - English (very good), German (basic)

☞ Professional software tools

PTI PSS/E (load flow, fault analyses, dynamic analyses etc)
PSA Power System Analyzer (load flow, program(NTC) and flow based(MAX FLOW) transfer capacities evaluation)
Matlab

☞ Microsoft Office Applications (Word, Excel, Power point,)

PROFESSIONAL EXPERIENCE

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

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

SELECTED REFERENCES

Projects in progress

Development of transmission and distribution network of Podgorica 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 Podgorica (capital of Montenegro) and development plan for transmission and distribution network on 110 kV, 35 kV and 10 kV voltage network for next period (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

2009 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.

Study of the 400 kV OHL Serbia – Romania

Team member

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 analysis, NTC calculation

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: dynamic stability analysis

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. 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: dynamic stability analysis

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 neighboring EPSs (Montenegro, Serbia, Macedonia, Greece, Italy) for different scenarios.

Tasks performed by author: load flow analysis, NTC calculation

Prototype of Service platform for Regional Balancing Market Balance Energy Tool for South East Europe prototype (BETSEE), Upgrade project

Team Member

for: SETSO SG, Energy Community Secretariat

The objective of the BETSEE upgrade project is to improve the operability and user friendliness of the BETSEE prototype platform. Main features of BETSEE#2 are pre-calculated graphical results for all possible requests per TSO and enhanced time dimension with hourly resolution and flexible products.

Tasks performed by author: algorithm and software testing

2008 Feasibility study for new under sea HVDC interconnection between Italy and Montenegro; Short Circuit, Dynamic Stability analyses, Reliability assessment

Network analyst (short circuit and dynamic stability analyses, reliability 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 (reliability indices) and feasibility of new under sea HVDC interconnection between Italy and Montenegro.

Tasks performed by author: Voltage stability analysis

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 analysis, NTC calculation

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 analyze 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

Model development for dynamic analyses of power system of Macedonia

Team member-analyst

for: MEPSO, ELEM Macedonia

Objective of the study is to collect all necessary data for Serbian power system and to build dynamic model for short and mid term dynamic analyses, and data base that corresponds to it. The model will be developed for two software tools currently in use in EMS: PSS/E and DIGSILENT. Following tasks and analyses have been performed: Data collection and data analyses, On site recordings, Dynamic model and data base building, Dynamic model verification

Tasks performed by author: Data analysis

Electricity market overview

Network analyst

for: Deloitte, Makenzijeve 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 and analysis

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 analyze 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

Integration of Baraha 400/132 kV substation into DEWA 400kV System

Network analyst (steady state load flow, static security analyses, short circuit analysis)

for: Dubai Water and Electricity Authority-DEWA, United Arab Emirates

Objective of this study is to look into all possible options, discuss with DEWA officials and agree on an economical and reliable solution to connect the Baraha 400/132 kV substation to the existing/future 400 kV system. The system studies shall be conducted on the agreed solution so that DEWA system will perform within the prescribed limits after the proposed additions/modifications. For the first time and because of lack of space, 400 kV cable technology is to be used in DEWA. The system study should also address any requirements identified such as counter measures for reducing short circuit currents, dynamic stability counter measures, etc.

Tasks performed by author: Load flow analysis, static security analysis, short circuit analysis

Connection of new (second) block in TPP Gacko to power system of Bosnia and Herzegovina

Network analyst (short circuit analysis)

for: CEZ, Czech Republic

Objective of this study is to give solution how to connect new 660 MW generation unit to transmission grid of Bosnia and Herzegovina, to enable reliable and secure evacuation of power from this site. Thorough examination of all possible critical states in network of Bosnia and Herzegovina has been performed, both from static and dynamic stability point of view. Technical values for selection of equipment have been given, for tendering purposes.

Tasks performed by author: Short circuit analysis

2005 - DACF procedure: Day Ahead Congestion Forecast

Team member (2005-)

for: EPS/EMS (2001-2005), ERS (2001-2004), EPCG/Prenos AD (2001-), ESM/MEPSO (2001-)

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; models merging, load flow and contingency analyses.

PUBLICATIONS

Selected conference papers:

- 2009** **Mathematical model of Regional Balancing Market and principles of BETSEE 2.0 platform**
T. Martinović, Z. Vujasinović, M. Apostolović
CIGRE Srbija, CIGRE Crna Gora; 2009
- Analysis of the development of generation, consumption and transmission in South-eastern Europe in period 2009-2020**
N. Jović, Z. Vujasinović, M. Vuković T. Martinović,
CIGRE Srbija, 2009

Finals:

- 2004** Faculty of Electrical Engineering, University of Belgrade, Serbia
"Loaf flow calculation by Newton-Raphson algorithm"