

Cookies on our website

We use cookies on this website, mainly to provide a secure browsing experience but also to collect statistics on how the website is used. You can find out more about the cookies we set, the information we store and how we use it on our cookies page.

If you're happy to accept these cookies, simply continue browsing.

Continue



Profile

Professor Dragan Jovcic

Professor Dragan Jovcic

Chair in Engineering

Overview



Professor Dragan Jovcic

Contact Details

Telephone

work +44 (0)1224 272336

Fax

fax +44 (0)1224 272 497

Email

d.jovcic@abdn.ac.uk

Address

The University of Aberdeen School of Engineering, University of Aberdeen
Aberdeen
AB24 3UE

Web Links

Prof Dragan Jovcic web page
Aberdeen HVDC research centre

Biography

Education:

PhD in Electrical Engineering from University of Auckland, 1999,
Diploma Engineer in Control Systems from University of Belgrade, 1993.
Postgraduate certificate in University teaching from University of Ulster, 2003.

Employment history:

Director, Aberdeen HVDC research centre, September 2015 - present
Professor, University of Aberdeen, UK, August 2012 - present
Reader, University of Aberdeen, UK, August 2011 - August 2012,
Senior Lecturer, University of Aberdeen, UK, August 2008 - August 2011,
Visiting professor, McGill University, Canada, July 2008- December 2008,
Lecturer, University of Aberdeen, UK, September 2004 - August 2008,
Lecturer, University of Ulster, UK, April 2000 – August 2004,
Design Engineer, Beca Carter Hollings and Ferner, and Transpower NZ Ltd, New Zealand,
1998-2000

Professional:

IEEE Senior member,
CIGRE member, Member of WG B4.52, B4.58, B4.64,
Associate editor: IEEE Transactions on Power Delivery,
IEEE PES Distinguished Lecturer,
Guest editor in Chief: IEEE Transactions on Power Delivery, Special issue on Frontiers of
Dc technology, 2016,
Guest editor in Chief: IET Power Electronics, Special issue on DC grids, 2015,

Publications:



Jovcic, D. & Ahmed, K. *High Voltage Direct Current Transmission: Converters, Systems and DC Grids*. Wiley-Blackwell, 2015.

IEEE explore
Scopus

Research

Research Interests

His research interests are in the areas of High Power Electronics, High Voltage Direct Current (HVDC) Transmission, DC transmission grids, Flexible AC Transmission Systems (FACTS), Interconnection of renewable energy, Power system modelling and control.

Current Research

High Power DC networks,
DC/DC conversion at MW powers,
High Voltage DC Transmission,
Flexible AC Transmission,
Wind energy,
Integration of Renewable Energy,
Power system modelling and control.

Research Grants

Major Research grants:

EU Horizon 2020, PROMOTion (Progress on Multiterminal DC networks)", January 2016-June 2020

EPSRC (Engineering and Physical Sciences Research Council) grant no EP/K006428/1 and NSFC China, a consortium of 2 UK and 3 Chinese Universities, "Developing DC networks with DC transformers", June 2013-June 2016

RTE (Réseau de Transport d'Électricité, France) "DC grids with full-bridge MMC and DC CBs" Post Doc fellow, September 2014 -December 2016.

European Research Council, ERC, Starting grant, "Modelling platforms for high-power resonant DC hub and power networks with multiple converter systems", March 2011-September 2015.

SSE (Scottish and Southern Energy) "Isolated multiterminal DC/DC converter for high power DC grids" "Post Doctoral fellow, January 2015- August 2016.

SSE (Scottish and Southern Energy) "Optimisation of Moray Firth HVDC" "PhD studentships, February 2013-July 2016.

RTE (Réseau de Transport d'Électricité, France) "Development of RTE NorthSea DC grid" Post Doc fellow, July 2012 -December 2013

EPSRC (Engineering and Physical Sciences Research Council) grant no EP/H010262/1, "Development of DC Transformer and Fault Current Limiter for High-Power DC networks", December 2009- December 2012.

M.Mueller (University of Edinburgh), D Jovcic (University of Aberdeen), M.Dunnigan (Heriot Watt University) and S.Finney (Strathclyde University), "SHAPED –Scottish Hub for Advanced Power Engineering Design)" SFC HORIZON and ERDF, June 2011 – June 2014

Scottish Enterprise, "Prototype development for High Gain DC transformer" Proof of Concept award, January 2010 – July 2011,
Royal Academy of Engineering, Global Research Fellowship "Advanced Converter Systems for Thyristor based HVDC", July 2008 - December 2008.
AU Knowledge Transfer Grant "High gain DC Transformer", 2007 - 2009,
KTP in collaboration with PACT Engineering, "Development of Drivetrain for PIGASYS", September 2007 - September 2009.
EPSRC (Engineering and Physical Sciences Research Council) grant no GR/R11377/01: "Analytical Modelling of FACTS Elements", January 2001 - October 2003,

Consultancy projects:

CERN (European Centre for Nuclear Research), Geneva, "Accelerator power supply modelling and control", 2003-2007,
PACT Engineering, Scotland, "Drivetrain modelling for a PIGASYS robot tool", 2007,

Teaching

Teaching Responsibilities

D Jovcic teaches Electrical Engineering year 3 and 4 subjects:

Electrical Power Engineering (EG3557) and
Electrical Machines and Drives (EG40FD).

He also teaches postgraduate courses:

Renewable technologies (Electrical) (EG50E2) and
Power distribution and sustainability (EG55E1).

He is a coordinator for the professional doctorate degree (EngD).

Further Info

External Responsibilities

Senior member IEEE, Control systems Society, Power and Energy Society and Power Electronics Society.

Associate editor IEEE Transactions on Power Delivery,
IEEE Distinguished lecturer,
CIGRE B4, Member,
Chairman CIGRE B4.76,

Publications

Publications

Currently viewing:

Page 1 of 11 Results 1 to 10 of 104

Contributions to Journals

Articles

Jovicic, D. & Zhang, H. (2017). 'Dual Channel Control with DC Fault Ride Through for MMC-based, Isolated DC/DC Converter'. *IEEE Transactions on Power Delivery*, vol 32, no. 3, pp. 1574 - 1582.

[Online] DOI: 10.1109/TPWRD.2017.2675909

[Online] AURA: Optimal_Control_journal_Revision4_dj.pdf

Lin, W. & Jovicic, D. (2017). 'Dynamic modelling of VSCs in a dq rotating frame for pole-to-pole dc fault study'. *IET Generation, Transmission & Distribution*, vol 11, no. 4, pp. 1072 - 1081.

[Online] DOI: 10.1049/iet-gtd.2015.0877

Jovicic, D., Zhang, H., Findlay, D., Annur, AZ. & Li, B. (2017). 'Subsea DC collection grid with high power security for offshore renewables'. *International Transactions on Electrical Energy Systems*, vol 27, no. 2, e2249, pp. 1-14.

[Online] DOI: 10.1002/etep.2249

[Online] AURA: Subsea_DC_Collection_Grid_with_High_Power_Security_for_Offsh...

Lin, W., Jovicic, D., Nguefeu, S. & Saad, H. (2016). 'Full Bridge MMC Converter Optimal Design to HVDC Operational Requirements'. *IEEE Transactions on Power Delivery*, vol 31, no. 3, pp. 1342-1350.

[Online] DOI: 10.1109/TPWRD.2015.2475130

[Online] AURA:

R1.Full_Bridge_MMC_Converter_Optimal_Design_to_HVDC_Operatio...

Jamshidi Far, AA., Hajian, M., Jovicic, D. & Audichya, Y. (2016). 'High-power modular multilevel converter optimal design for DC/DC converter applications'. *IET Power Electronics*, vol 9, no. 2, pp. 247-255.

[Online] DOI: 10.1049/iet-pel.2015.0516

Lin, W., Jovicic, D., Nguefeu, S. & Saad, H. (2016). 'Modelling of high-power hybrid DC circuit breaker for grid-level studies'. *IET Power Electronics*, vol 9, no. 2, pp. 237-246.

[Online] DOI: 10.1049/iet-pel.2015.0518

Jamshidifar, A. & Jovicic, D. (2016). 'Small Signal Dynamic DQ Model of Modular Multilevel Converter for System Studies'. *IEEE Transactions on Power Delivery*, vol 31, no. 1, pp. 191 - 199.

[Online] DOI: 10.1109/TPWRD.2015.2478489

[Online] AURA:

s1_ln20505728210988944_1939656818Hwf1338224663IdV_9565539322...

Jamshidi Far, AA., Jovicic, D. & Alsseid, AM. (2016). 'DC voltage droop gain for a five-terminal DC grid using a detailed dynamic model'. *International Transactions on Electrical Energy Systems*, vol 26, no. 2, pp. 429-443.

[Online] DOI: 10.1002/etep.2097

[Online] AURA: ITEES_paper_rev1_dj.docx

Lin, W., Jovicic, D. & Fazeli, SM. (2015). 'Distributed Power balance and damping control for high power multiport LCL DC hub'. *Electric Power Systems Research*, vol 129, pp. 185-193.

[Online] DOI: 10.1016/j.epsr.2015.08.013

[Online] AURA: Ro617_Manuscript.pdf

Lin, W. & Jovicic, D. (2015). 'Power balancing and dc fault ride through in DC grids with dc hubs and wind farms'. *IET, Renewable Power Generation*, vol 9, no. 7, pp. 847-856.

[Online] DOI: 10.1049/iet-rpg.2014.0401

[Online] AURA:

0409_Power_Balancing_and_dc_Fault_Ride_Through_in_DC_Grids_w...

Show **10** | 25 | 50 | 100 results per page

[update](#) | [about Staff Pages](#)