



Europass Curriculum Vitae



PERSONAL INFORMATION

First name(s) / Surname(s) **CONSTANTIN MOLDOVEANU**
 E-mail cmoldoveanu@novaindustrialisa.ro
 Nationality Romanian

OCCUPATIONAL FIELD/STAGES

Work experience

7	currently
Occupation or position held	General Director
Name and address of employer	NOVA INDUSTRIAL SA Bucharest
Type of business or sector	The company's management in all aspects of business, technical, economical, human, etc.
6	
Occupation or position held	Director of the Electrical Transmission and Distribution Center and Senior Scientific Researcher of 1 st degree
Name and address of employer	Romanian Power Grid Company "Transelectrica" - Energy Research and Modernizing Institute, ICEMENERG Bucharest
Type of business or sector	Management of the Electrical Research and Engineering Center on issues of electrical transmission and distribution; Coordinating the research centre on issues of studies, researches, electrical engineering and consultancy for high, medium or low voltage equipment in the power field; Project director for more research works and technological engineering.
5	
Occupation or position held	Director of Power Transformers and Electrical Apparatus Department and Senior Scientific Researcher of 1 st degree
Name and address of employer	Romanian Electric Power Corporation (CONEL) - Energy Research and Modernizing Institute, ICEMENERG Bucharest
Type of business or sector	Management of research and technological engineering department on high, medium and low voltage power equipment in the power field; Coordinating the department's activities on issues of studies, research, electrical engineering and consultancy for high, medium or low voltage equipment in the power field; Project director for more research works and technological engineering; Project director for more research works and technological engineering in the power field
4	
Occupation or position held	Head of the Power Transformers and Electrical Apparatus Division and Senior Scientific Researcher of 1 st degree
Name and address of employer	Romanian Electricity Authority (RENEL) - Studies, Research and Engineering Group (GSCI)
Type of business or sector	Coordinating the division's activities on issues of studies, research, electrical engineering and consultancy for high, medium or low voltage equipment in the power field; Project director for more research works and technological engineering in the power field
3	
Occupation or position held	Head of Power Transformer Division and Senior Scientific Researcher of 1 st degree (since 1990), 2 nd degree respectively (since 1985) within Power Transformers and Electrical Apparatus Laboratory;

Name and address of employer	Romanian of Electrical Energy - MEE - Energy Research and Modernizing Institute, ICEMENERG Bucharest Ministry of Electric Energy
Type of business or sector	Coordinating the division's activities on issues of studies, research, electrical engineering and consultancy for power and distribution transformers; Project director for more research works and technological engineering
2	
Occupation or position held	Senior Scientific Researcher of 3 rd degree and scientific researcher
Name and address of employer	Romanian Energy Power Ministry MEE - Energy Research and Modernizing Institute, ICEMENERG Bucharest
Type of business or sector	Research activities and technological engineering in power transformers and high voltage techniques within the High Voltage Research Laboratory – Power Transformers' Staff
1	
Occupation or position held	Junior scientific researcher
Name and address of employer	Romanian Energy Power Ministry - The Electro-energetic and Thermo-energetic Research Institute (ICENERG)
Type of business or sector	Research activities and technological engineering in the field of power transformers and high voltage techniques within the Laboratory of High Voltage Technique - chief of staff "Power Transformers"

Education and qualification

Title and qualification awarded	Doctor engineer - Ph.D.,
Principal subjects/occupational skills covered	Ph.D. dissertation: <i>"Theoretical and experimental contributions regarding the methods of measurement of the partial discharges in transformers"</i>
Name and type of organisation providing education	Polytechnic Institute of Iasi - Electrotechnical Faculty,
Title of qualification awarded	Diplomate engineer
Principal subjects/occupational skills covered	Electrical Machines and Apparatus Specialty
Name and type of organisation providing education	Polytechnic Institute of Bucharest - Electrotechnical Faculty
International stages	(abstract)
Period	June 01 - September 30, 1995 (Hitachi and Tokyo)
Title of qualification awarded	- Current concerns in the field of education and research in Japan; - Scientific research stage on issues : <i>"Production and analysis of gases dissolved in power transformer oil"</i>
Name and type of organisation providing education and training	Japan - Japan Society for Promotion of Science (JSPS) + Ibaraki University + Ibaraki Research Institute (the "Memorandum of understanding on the exchange of specialists between the Ministry of Research and Technology of Romania and the Japan Society for the Promotion of Science)
Periods	June 30 - July 30, 1981 and June 30 - July 30, 1983 (Paris)
Title of qualification awarded	Training stages / joint research activity regarding <i>"The detection of deformations of power transformer windings in operation by diagnosis based on the low voltage impulse (LVI) method and respectively the frequency response analysis (FRA) method"</i>
Name and type of organisation providing education and training	France: EdF – DER (Direction des Etudes et Recherches d'Electricite de France) based on scientific cooperation Agreement between EdF and Romanian Energy Power Ministry

International professional activity (abstract)

Year	1993
Principal subjects	Technical consultancy for Romanian Electricity Authority (RENEL) – Industrial Center for Electricity Transmission and Distribution (CITDEE) at signing of the contract for the acquisition of three automatic chromatographic analysis systems of the free gases (gas mixture samples taken off the power transformer Buchholz relay) and of the gases dissolved transformer insulating oils
Name and type of international organization	GERMANY Siemens" Society - Karlsruhe
Year	1988
Principal subjects	Technical consultancy for the Romanian Energy Power Ministry MEE – Industrial Center for production of electrical and thermal energy (CIPEET): representative at the factory acceptance tests of one 80 MVA 121/10,6 kV power transformer for Brazi Thermal Power Plant
Name and type of international organization	Ukraine - ZTZ Zaporozhye Power Transformers Factory
Year	1988
Principal subjects	Technical consultancy for the Romanian Energy Power Ministry MEE - Industrial Center for Electricity Transmission and Distribution - CITDEE: representative at the factory acceptance tests of 2 pcs. current limiting reactors for 750/400 kV Isaccea substation
Name and type of international organization	Hungary - "Ganz" Budapesta Factory
Years	1984, 1986
Principal subjects	Technical consultancy for the Romanian Energy Power Ministry MEE - Industrial Center for Electricity Transmission and Distribution – CITDEE: representative at the factory acceptance testing of 6 pcs. AODTTN 417/417/80 MVA 750√1,73/400√1,73/15,75 kV power autotransformers for 750/400 kV Isaccea substation
Name and type of international organization	Ukraine - ZTZ Zaporozhye Power Transformers Factory
Years	1984, 1987
Principal subjects	Technical consultancy for the Romanian Energy Power Ministry MEE - Industrial Center for Electricity Transmission and Distribution - CITDEE: representative at the factory acceptance testing of 3 pcs. RODT 110 MVA 750 kV shunt reactors for 750/400 kV Isaccea substation
Name and type of international organization	RUSIA - Moscow ELECTROZAVOD factory

SOCIAL SKILLS AND COMPETENCES

Member of professional associations:

- CIGRE Member (International Council on Large Electric Systems) Paris, since 1991;
- Representative of Romania in CIGRE Study Committee B3 "Electrical substations" of CIGRE Paris, from 2020 - currently;
- Representative of Romania in CIGRE Study Committee 12 "Transformers" of CIGRE Paris, during 1992 - 1998 and 2012 - 2020;
- Founding member of the National Romanian Committee - CNR of CIGRE, since 2006;
- Founding member of the "CNR-CIGRE" professional association, in 2006;
- Vice Chairman of the "CNR-CIGRE" professional association, since June 2010 - currently;
- Member of the Romanian Energy Center - CRE in Brussels, 2012-2015;
- Member of the CIGRE International Working Group WG A2.44 "Transformer intelligent condition monitoring", 2011-2015;
- Member of the CIGRE International Working Group WG A2.34 "Guide for transformer maintenance", during 2007 - 2010;
- Member of the CIGRE International Specialist Working Group WG 12.17 "Particles in oil" during 1996 -2000;
- Member of the Institute of Electrical and Electronics Engineers - IEEE Society, since 2010;

	<ul style="list-style-type: none"> - Member in the "National Romanian Committee of the World Energy Council" CNR- CME since 1990; - President of the MEE – RENEL/ CONEL Romanian Specialist Group "Transformers and Autotransformers" during 1985 - 1999; - President of the ICEMENERG Specialists Group "Transformers and Autotransformers" during 1985 - 2001; - Founding member of the Scientific and Technical Association of the Romanian Power Engineers – "Energetica" ASTER (taken by IRE).
ORGANISATIONAL SKILLS AND COMPETENCES	
1. Management skills and competencies	Over 35 years of managerial experience regarding all aspects: business, technical, economical, human, etc., in a state-owned company (100%) and respectively, a private-owned company (100%).
2. Technical skills/competences Certificate	2.1. National Energy Regulatory Authority - ANRE - Technical expert; 2.2. National Energy Regulatory Authority - ANRE - Project verifier; 2.3. National Energy Regulatory Authority - ANRE - Authorized Electrician, Grade IVA and IVB;
3. Experience gained on National Research - Development - Innovations projects	
3.1. Director of research-development-innovation projects with Ministry of Research, Ministry of European Funds, etc.	3.1.1. Technical director of the project „ Innovative integrated ICT (Information and Communication Technologies) system for real-time control and monitoring of electricity quality and losses on transport and distribution lines in the National Energy System”, Contract no. 26/2017 (Structural funds- O2.2.1, Ministry of Communications and Information Society & Ministry of European Funds), Period: 2017-2020; 3.1.2. Project Director for "Integrated monitoring and control system for full real-time estimation of functional condition of assembly electrical networks" /SIMCEC", Contract no. 33/2014 (Program: Partnerships in priority areas, PN-II- PT-PCCA-2013-4-0259, Ministry of National Education - Executive Unit for Financing Higher Education, Research, Development and Innovation), Period: 2014-2016; 3.1.3. Project Director for „Complex system for on and off-line monitoring of high voltage assets of national power system / ACTIV-SMART", Contract no. 485/2013 (Structural funds- O2.3.3, Ministry of National Education - Intermediate Agency for Research), Period: 2013 - 2015; 3.1.4. Project Director for "Synchronized system of Smart Grid type for complex monitoring of high voltage substations" / SINCRO SMART; Contract no. 475 / 2013 (Structural funds- O2.3.3, Ministry of National Education - Intermediate Agency for Research), Period: 2013-2015; 3.1.5. Project Director for "Equipment for complex monitoring of high voltage stations - EMCSIT, Contract no. 144/2008 together with the Romanian Ministry of Education, Research and Innovation –INNOVATION Program – Period: 19.08.2008-11.06.2011; 3.1.6. Project Director for "Development of an expert system for assessing the condition of high power transformers in operation by RVM method", Contract no. 444/1999 - (RELANSIN subprogram 1, Ministry of Education, Research and Innovation), Period: 1999 - 2000; 3.1.7. Project Manager / Director for over 300 research - innovation and technological engineering projects (within the contracts with the Romanian Energy Power Ministry - MEE, The Romanian Industry Ministry, the Romanian Research and Education Ministry, the Industrial Center for Electricity Transmission and Distribution - CITDEE, the Industrial Center for Power Production – CIPEET RENEL, the Romanian Electricity Authority (RENEL), the Romanian Electric Power Corporation (CONEL), Romanian Power Grid Company "Transelectrica", SC Hidroelectrica SA, etc..)
3.2. Research-Development-Innovation Activity (abstract):	3.2.1. - Developing NOVA – TRANSPOWER expert system (Project Director) for the asset management of the primary high voltage electrical equipment: power transformers and the shunt reactors – TRANSPOWER - PT module , current transformers - TRANSPOWER - TC module , voltage transformers - TRANSPOWER - TT module, circuit breakers - TRANSPOWER - I – module, disconnectors - TRANSPOWER - S -module, surge arresters - TRANSPOWER - D - module; - NOVA HES – 6 expert system that detects the humidity content in insulating system of power transformers, using 6 methods of diagnosis; NOVA PREDICT software which determines the optimum conditions for investigating the technical condition of high voltage electrical equipment;

- 3.2.2. Developing **NOVA WASTE - MANAGER** software system (Project Director) for the waste management at CNTEE "Transelectrica" SA;
- 3.2.3. Developing **NOVA POWER CONSTRUCT** software (project Director) for the power construction management at CNTEE "Transelectrica" SA;
- 3.2.4. Researches on the technical-scientific basis and development of some specialized equipment necessary to the electrical engineering and realized by Nova Industrial SA, such as:
 - **NOVA TRAFOMON** (patent in 1995) equipment for the complex on-line monitoring of power transformers in operation;
 - **NOVA SMT** Equipment for the on-line monitoring of high voltage transformer bushings;
 - **NOVA PDC/RVM** equipment for the diagnoses of the humidity content in insulating system of power transformers, using , the polarization and depolarization current measurement (PDC method) and the recovery voltage measurement (RVM method).
 - **NOVA ARF** equipment for the diagnosis of the condition from a mechanical point of view of the power transformer windings by frequency response analysis (ARF method);
 - **NOVA IJT** equipment for the diagnosis of the condition from a mechanical point of view of the power transformer windings by low voltage impulse test (IJT method).
- 3.2.5. "The study regarding the elaboration of the strategy regarding the implementation of the Smart Grid concept in CNTEE "Transelectrica" SA - Roadmap ";
- 3.2.6.- Studies and researches for developing the **Xb** additive necessary for reducing the polar effect of transformer mineral oil and to increase the values of the insulation resistances of the power transformer windings;
- 3.2.7. Researches on developing the technology of working and coordination for achieving the necessary installations (as Project Director) for on-site drying/revitalization/ regeneration work of medium and large power transformers insulation (contracts with Romanian Power Ministry):
 - **RUTI-ETU** oil treatment plant for degassing, dewatering and filtering of transformer oil (rated flow 16 t/h, filtering la 1-5 µm, maximum drying 5 ppm, maximum 0,2 % degree of degassing , maximum heating 100 °C);
 - **RUTI-EVUT** installation for the advanced vacuum of the tank and for capturing through freezing (cryogenic trap) of the vapors (water and light hydrocarbons) extracted from the solid insulation in the drying process;
 - **RUTI-IMIT** installation for heating in direct current of the power transformers (maximum power. 400 kVA, 700 Vdc maximum voltage, 1250 Adc maximum current)
 - **RUTI-IPAU** installation for dry air generating at a dew point under -50 °C.
- 3.2.8. Research on the lifetime estimation of oil distribution transformers by lightning impulse voltage repeated tests;
- 3.2.9. Research on accelerated thermal aging and the thermal lifetime estimation of oil distribution transformers;
- 3.2.10. Research on theoretical and experimental aspects of partial discharge repeatability measurement and localization of their sources for power transformers;
- etc.

3.3. Technological development engineering activity (abstract):

- 3.3.1. Project director and specialized consultancy in the field of power stations, as authorized technical expert within contracts "Consulting" Power Stations" between Nova Industrial SA and the National Electricity Transmission Company" Transelectrica "SA, C6 / 2011-2014 and C08 / 2015-2018, respectively);
- 3.3.2. Project Director responsible for the production, supply, testing, commissioning of all monitoring systems and equipment (over five hundred pcs.) - necessary for "Transelectrica Smart Grid pilot program for on-line monitoring of 400/110 kV Darste substation, respectively 220/110 kV Gradistea and Mostistea substations";
- 3.3.3. Project Director and technical expert for works of "Technical expertise and evaluation of the remaining life" at hundreds power transformers and shunt reactors in operation such as: 400/400/160 MVA 400/231/22 kV and 200/200/60 MVA power autotransformers, 250/250/80 MVA 400/121/20 kV power transformers, 100 MVAr shunt reactors, 10-60 MVA 110/MV power transformers from substations belonging to National Power Grid Company "Transelectrica" SA; 440 MVA 415/24 kV and 250/250/80 MVA 400/121/20 kV power transformers from Cernavoda nuclear power plant; 190 MVA 242/15,75 kV, 90 MVA 242/15,75 kV, 90 MVA 121/10,5 kV and 10-40 MVA 110/6,3 kV power transformers from hydro power plants belonging to HIDROELECTRICA SA; 10-40 MVA 110/MT power transformers from substations belonging to ENEL- Dobrogea SA and ELECTRICA SA, etc.
- 3.3.4. Project director for the elaboration of 36 necessary Internal Technical Norms for CNTEE "Transelectrica" SA, ctr. C16;
- 3.3.5. Project director "Study on the analysis of the equipment condition from RET with normal operating time exceeded", ctr. C188;

- 3.3.6. Project director „Multispectral inspection in (IR) infrared, (UV) ultraviolet and visible spectrum in the 400 kV Isaccea substation” ctr.8990;
 - 3.3.7. Project director "Analysis / evaluation of the technical condition of the 100 MVA 400 kV shunt reactor from the 400/110/20 kV Smardan substation", ctr. C08, order. 1412;
 - 3.3.8. Project director „Study regarding the analysis of the equipment condition from RET with the normal operation duration exceeded (technical expertise at 29 pieces of power transformers 16 -250 MVA, voltages 110 - 400 kV, respectively at 4 pcs. 110 kV and 400 kV top IO and SF6 circuit breakers) ”, ctr. C188;
 - 3.3.9. Project director "Study on the operating behavior of earthing installations in power substations", ctr. C164
 - 3.3.10. Project director "Analysis of composite insulation from Bucharest South station of CNTEE "Transelectrica" S.A." ctr. C08, order 13298;
 - 3.3.11. Project director "Consulting services consisting in the expertise of the technical condition of 3 (three) chains of composite insulators of 220 kV and 110 kV, respectively, Furukawa, from the 220/110 kV station Resita - ST Timisoara", ctr. C08, order 41614;
 - 3.3.12. Project director "Revision PE 126/82 - Regulation of technical operation of electrical equipment in primary distribution", ctr. C 08, order 30133;
 - 3.3.13. Consultancy and technical assistance on evaluations and interpreting the results of tests / analysis / measurements performed in operating power transformers by different service providers;
 - 3.3.14. Consultancy and technical assistance for the reception in the country or abroad of some large power transformers or shunt reactors (for example, reception at Electroputere Craiova of transformers of 440 MVA 24/400 kV and 250/250/80 MVA 400/121/20 kV for Cernavoda Nuclear power plant, reception at the factory from ZTZ Zaporozhye - Ukraine of 6 autotransformers of 417/417/80 MVA 750/√3/400/√3/15,75 kV for 750/400 kV Isaccea substation, etc.
 - 3.3.15. Establishing the main technical conditions for producing and testing the power transformers and shunt reactors intended to be installed in the power system; ensuring the quality control on reception from local and foreign suppliers; technical assistance on mounting and commissioning, etc.
 - 3.3.16. Analyzes regarding the behavior of power transformers in operation; damage analysis; establishing the technical conditions necessary to be imposed on suppliers and in operation to improve the quality and availability of this type of equipment.
 - 3.3.17. Assessment of the risk of maintaining in operation the primary high voltage equipment (power transformers, shunt reactors) in the electrical substations at which the state parameters are below the limits allowed by the operating regulations;
 - 3.3.18. Responsible, performer and technical coordinator from the Romanian side for the verifying works before and post mounting, respectively for commissioning, of 7 pcs. 417/417/80 MVA 750/√3/400/√3/15,75 kV autotransformers and 7 pcs. of 110 MVA 750 kV shunt reactors in 750/400 kV Isaccea substation;
 - 3.3.19. Coordinator responsible from MEE - GSCI for assimilation in manufacturing in Romania and certification of the quality of power transformers (440 MVA 415/24 kV, respectively 60/30/30 MVA 110 / 10.5 / 6.3 kV and 60/30/30 MVA 110/24 / 6.3 kV for group No. 1 from Cernavoda NPP);
 - 3.3.20. Specific activities as a member and/or as the leader group of specialists in power transformers' field, of the Romanian Energy Power Ministry - MEE/Romanian Electricity Authority - RENEL: analysis of the technical documents of the system designers or equipment suppliers; drawing the beneficiary's views and assisting him in the technical-economical confrontations with the service or equipment suppliers; control to the suppliers for power or distribution transformers and, respectively, shunt reactors during reception phase, mounting or commissioning control of high power transformers or shunt reactors, recommendations of power transformer and shunt reactor manufacturers for the technical attestation as MEE/RENEL suppliers; failure analysis;
- etc.

4. OTHER SKILLS AND COMPETENCES

- 4.1. Certified as **technical expert** by the Romanian Energy Regulatory Authority - ANRE
- 4.2. Certified as **project verifier** by the Romanian Energy Regulatory Authority - ANRE
- 4.3. Certified as **electrician IVA and IVB degree** (the maximum degree) by the Romanian Energy Regulatory Authority - ANRE

5. SCIENTIFIC PAPERS AND PRESENTATIONS

Publications - Author or co-author of over 100 technical-scientific works (books and papers) published in the country and abroad, many presented at international conferences, 10 inventions and 4 innovations, respectively.

5.1. Author or co-author of brochures / technical books published in the country or abroad (abstract):

- 5.1.1. C. Dupont (BR), C. Beauchemin (CA), L. Cheim (US), N. Fantana (DE), C. Kane (US), R. Skrzypek (DE), J. Wetzter (NL), J. Borghetto (IT), P. Boss (CH), G. Buchgraber (AT), G. Buckley (AU), M. Bukvic (MK), T. Chiulan (RO), G. Csépes (HU), P. da Costa Silva (BR), R. da Fonte (BR), H. da Silva (BR), R. da Silva (BR), P. de Oliveira Turchiari (BR), A. de Pablo (ES), M. Foata (CA), W. Gil (PL), A. Gomes (BR), T. Gradnik (SI), E. Iraburu (ES), P. Jarman (UK), M. Jensen (DK), F. Johnsen (NO), M. Kadowaki (JP), S. Keitoue (HR), M. Koch (AT), A. Mcgrail (US), E. Mackenzie (UK), **C. Moldoveanu** (RO), K. Najdenkoski (MK), T. Noonan (IE), M. Paulino (BR), L. Peh (NZ), P. Picher (CA), G. Russell (AU), M. Ryadi (FR), T. Saha (AU), F. Scatiggio (IT), J. Silveira (BR), M. Soares (PT), I. Solteiro (BR), K. Takano (JP), J. Velek (CZ), K. Viereck (DE), A. Vita (BR) - „**Guide on transformer intelligent condition monitoring (TICM) systems**”, CIGRE 2015 technical brochure no 630/2015 (Final report of WG CIGRE A2.44), 140 pages.
- 5.1.2. C. Rajotte (CA), M. Foata (CA), P. Jarman (UK), F. Larese (FR), P. Lorin (CH), B. Pahlavanpour (UK), J.P. Patelli (FR), J. Velek (CZ), R. Willoughby (AU), R. Barrento (PT), P. Boman (US), I. Diaconu (RO), A. Drobyshevski (RU), Y. Ebisawa (JP), T. Fagarasan (RO), N. Fantana (DE), H. Gago (ES), J. Gebauer (DE), P. Gervais (CA), M. Krüger (AT), G. Lawler (IR), R. Maina (IT), **C. Moldoveanu** (RO), P. Mueller (CH), D. Olan (CA), M. Pena (BR), E. Perez-Moreno (ES), S. Quintin (ES), V. Samoilis (GR), F. Simon (FR), A. Shkolnik (IS), B. Sparling (CA), P. Warczynski (PO) - „*Guide for Transformer Maintenance*”, CIGRE 2010 Technical Brochure No.445 (Final report of WG CIGRE A2.34), 120 pages.
- 5.1.3. J. Aubin, G.I. Antonov, W. Chunhua, J. Diesendorf, J. Gonzalez, P.V. Goosen, P.N. Jarman, G. Jorendal, C. Krause, C. Boisdon, S. Letaidier, H. Lohmeyer, M. Ikeda, T. Buchacz, **C. Moldoveanu**, T.I. Morozova, K. Newman, T.V. Oommen, M. Oserwaser, G. Praxl, J.B. Sund, C. Vincent - „*Effect of particles on transformer dielectric strength*”, CIGRE 2000 Technical Brochure No. 157 (Final report of WG CIGRE 12.17), 144 pages.
- 5.1.4. C. Moldoveanu, V. Manitiu, M.R. Marinescu, M. Palici “Fault detection of the internal structure of the power transformers and autotransformers subject to electro-dynamic stress”, Technical brochure Published by MEE - ICEMENERG, 1987, 107 pages.
- 5.1.5. C. Moldoveanu, G. Fischer – “Fault detection via the analysis of the gases dissolved in oil to the power transformers in operation”, Technical brochure published by MEE - ICEMENERG, 1987, 106 pages.
- 5.1.6. C. Moldoveanu, V. Manitiu - “The control of the temporary, accidental or periodical overload capacity of the power transformers subject to electro-dynamic stress”, Technical brochure published by MEE - ICEMENERG, 1982, 63 pages.
- 5.1.7. C. Moldoveanu, G. Balan - “Fault detection in the power transformers coiling via the measurement of the intensity of the partial discharges”, Technical brochure published by MEE - ICEMENERG, 1977, 72 pages.

5.2. Author or coauthor of technical reports within the official international contacts:

- 5.2.1. C. Moldoveanu: “*Expert Systems for On and Off - line Monitoring of Large Power Transformers*”, Scientific report for the Japanese Society for the Promotion of Science, 1995, 72 pages.
- 5.2.2. C. Moldoveanu, V. Manitiu : “*La defectoscopie de la structure interne des transformateurs et autotransformateurs de puissance lors des contraintes électrodynamiques*”, Scientific report for Electricite de France-DER, 1984, 105 pages.
- 5.2.3. C. Moldoveanu: “*Erreurs possibles dans l'estimation par la methode de la variation de l'impedance de court-circuit, de l'etat des transformateurs de puissance apres court-circuit*”, Scientific report for Electricite de France_DER, 1981, 13 pages.
- 5.2.4. C. Moldoveanu, V. Manitiu : “*Caracterisation du point de vue thermique de la qualite des transformateurs de distribution dans l'huile*”, Scientific report for Electricite de France,, 1981, 13 pages.

5.3. Author or coauthor at papers published in International Conference Proceedings (abstract):

- 5.3.1. **C. Moldoveanu**, I.M. Ionita, S.D. Grigorescu, V. Brezoianu, A. Tava, S. Zaharescu “Requirements of a Real Time Monitoring and Analysis System of Power Losses in Electrical Transmission and Distribution Systems” International Conference on Modern Power Systems, Cluj-Napoca, 21-23 May 2019, Paper N0. 053;
- 5.3.2. I. Ionita, **C. Moldoveanu**, A. Tava, S.D. Grigorescu “Cybersecurity concerns on real time monitoring in electrical transmission and distribution systems (SMART GRIDS)” 2019 54th International Universities Power Engineering Conference (UPEC), September 2019. DOI: 10.1109/UPEC.

- 5.3.3. C. Moldoveanu**, I. Ionita, V. Brezoianu, S. Zaharescu, S. Mesteacan, SD Grogorescu, "Real time monitoring and analysis system of power losses in electrical transmission and distribution systems" International Conference on Condition Monitoring, Diagnosis and Maintenance 2019, CMDM 2019 (5th edition), Radisson Hotel, Bucharest, Romania, September 9th -11th 2019,, paper no. 103, ISSN 2344-245X
- 5.3.4. C. Moldoveanu** , I. Hategan, A. Rusu , I. Iacobici , M. Budan, M. Ploeanu, V. Florea, V. Brezoianu, S. Zaharescu, I. Ionita "Particularities of the additional site commissioning tests applied to power transformers and shunt reactors for correct decision regarding their technical condition - a Romanian Experience" - A2-303 - 2018 CIGRE SESSION, Paris, Franta, 2018.
- 5.3.5. C. Moldoveanu**, I. Hategan, V. Brezoianu, A. Vasile, S. Zaharescu "Power transformer on-line monitoring & diagnostic system as a Smart grid solution" International Conference on Condition Monitoring, Diagnosis and Maintenance 2017, CMDM 2017 (4rd edition), Radisson Hotel, Bucharest, Romania, September 25th -27th, 2017, paper no. 110, ISSN 2344-245X;
- 5.3.6. C. Moldoveanu**, I. Hategan, L. Iacobici, Virgil Brezoianu, A. Vasile, M. Ploeanu, V. Florea, Emilia Munteanu, Cristian Baci, "Evaluating the safety condition of high voltage composite insulators using the online leakage current monitoring and diagnostic systems, a Romanian experience" International Conference on Condition Monitoring, Diagnosis and Maintenance 2017, CMDM 2017 (4rd edition), Radisson Hotel, Bucharest, Romania, September 25th -27th, 2017, paper no. 115, ISSN 2344-245X;
- 5.3.7. C. Moldoveanu**, A. Rusu, M. Florea, M. Vaju, I. Hategan, L. Iacobici, N. Balta, S. Zaharescu, M. Avrănescu, P. Curiac, A. Vasile, B. Toader, I. Ioniță, F. Goni, C. Radu, Al. Szlivka, "OHLM – Integrated Solution for Real-time Monitoring of Overhead Transmission Lines", IEEE - ESMO 2016 (IEEE 13th International Conference on Transmission & Distribution Construction, Operations & Live-Line Maintenance), Columbus, OH – Sept. 12-15, 2016.
- 5.3.8. C. Moldoveanu**, I. Hategan, A. Rusu, M. Florea, M. Budan, V. Brezoianu, A. Vasile, M. Avrănescu, S. Zaharescu, I. Ioniță, S. Slivka, "Smart Grids: On-Line Monitoring and Condition Assessment of High Voltage Substations", IEEE - ESMO 2016 (IEEE 13th International Conference on Transmission & Distribution Construction, Operations & Live-Line Maintenance), Columbus, OH – Sept. 12-15, 2016.
- 5.3.9. C. Moldoveanu**, M. Florea, A. Rusu, M. Budan, I. Hategan, P. Stroica, V. Brezoianu, A. Vasile, M. Avrănescu, I. Ioniță, S. Szlivka - Romania, "Improvements of Large Power Transformer Condition Real Time Monitoring and Diagnosis Expert System – a Romanian Experience" - A2-114 - 2016 CIGRE SESSION, Paris, 2016.
- 5.3.10. C. Moldoveanu**, A. Rusu, M. Florea, M. Vaju, N. Balta, I. Hategan, S. Zaharescu, M. Avrănescu, P. Curiac, A. Vasile, B. Toader, I. Ioniță, F. Goni, C. Radu, Al. Szlivka, "Real Time Measurements for Online Monitoring and Intelligent Management of High Voltage Transmission Lines" - B2-211, 2016 CIGRE SESSION, Paris, 2016.
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8. AUTHOR OR CO-AUTHOR INNOVATIONS CERTIFIED IN ROMANIA

- 8.1. **C. Moldoveanu**, C. Stanila, T. Serban, Iv. Moldoveanu „*Technology and equipment for measurement of total gas content, dissolved gases in transformer oil, during the oil treatment – CGU – 0.05 RUTI absorptiometer type*” Certificate of the Romanian Ministry of Electric Energy no. 4591;
- 8.2. **C. Moldoveanu**, C. Stanila, T. Serban „*Equipment for determination of transformer oil resistivity during the oil treatment RU – 200 RUTI type*” Certificate of the Romanian Ministry of Electric Energy no. 4590;
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9. TECHNICAL CHAIRMAN OF INTERNATIONAL CONFERENCES

- 9.2.1. "International Conference on Condition Monitoring, Diagnosis and Maintenance - CMDM":
- Edition I: Radisson Blu Hotel, September 19 - 23, 2011, Bucharest, Romania;
 - Edition II: Radisson Blu Hotel, September 2 - 5, 2013, Bucharest, Romania;
 - Edition III: Athénée Palace Hilton Hotel, October 5 - 8, 2015, Bucharest, Romania;
 - Edition IV: Radisson Blu Hotel, September 25 - 27, 2017, Bucharest, Romania;
 - Edition V : Radisson Blu Hotel, September 9 - 11, 2019, Bucharest, Romania;

10. RECOGNITION
IMPACT
activity
(extras):

10.1. Diplome

9.2.2. "CIGRE Regional South-East European Conference (RSEEC)"

- a) Edition I: Hilton Hotel, October 10 - 12, 2012, Sibiu, Romania;
- b) Edition II: Timisoara Hotel, October 8 - 10, 2014, Timisoara, Romania;
- c) Edition III: UPB, September 25 - 27 2017, Bucharest, Romania;
- d) Edition IV: UPB, October 3-5, 2018, Bucharest, Romania;
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