

Monitoring results of the activities of National Study Committees and Members of RNC CIGRE by KPI for the reporting period of September 1, 2016 to September 1, 2018



cigre

For power system expertise

Activity assessment results of Individual Members of RNC CIGRE

A total of 74 Individual Members took place (incl. 26 employees of Collective Members);

- **1st place:** Stanislav Yeroshenko (URFU, Yekaterinburg) – 84.25 points
- **2nd place:** Alexandra Haljasmaa (URFU, Yekaterinburg) – 72.5 points
- **3rd place:** Pavel Ilyushin (PEIPK, Saint Petersburg) – 51.5 points

4th to 10th place:

- Konstantin Suslov (INRTU, Irkutsk) – 39.5 points
- Andrey Zhukov (SO UPS, Moscow) – 39.5 points
- Vladimir Shikhin (NRU MPEI, Moscow) – 29.5 points
- Leonid Daryan (UPS Technical Inspection, Moscow) – 29 points
- Vladimir Ryabchenko (R&D Center at FGC UES, NRU MPEI, Moscow) – 24 points
- Vasiliy Larin (VEI, Moscow) – 23.5 points
- Andrey Shuntov (NRU MPEI, Moscow) – 22.75 points

Activity assessment results of Collective Members of RNC CIGRE

A total of 21 Collective Members participated

- **1st place:** Ural Federal University (URFU) (306.25 points)
- **2nd place:** JSC SO UPS (179 points)
- **3rd place:** St. Petersburg Power Institute of Further Education (PEIPK) (162.75 points)
- **4th place:** FGC UES PJSC (131.5 points)
- **5th place:** NRU MPEI (127.75 points)

Activity assessment results of National Study Committees of RNC CIGRE

- **1st place:** B5 'Protection and Automation' (Leading scientific and engineering partner: SO UPS, Chief Executive: A. Zhukov) – 160 points
- **2nd place:** C6 'Active Distribution Systems and Distributed Energy Resources' (Leading scientific and engineering partner: PEIPK, Chief Executive: P. Ilyushin) – 115 points
- **3rd place:** B3 'Substations and Electrical Installations' (Leading scientific and engineering partner: FGC UES, Chief Executive: D. Vodennikov) – 85.25 points
- **4th place:** B4 'DC Systems and Power Electronics' (Leading scientific and engineering partner: NIPT, Chief Executive: O. Suslova) – 74.75 points
- **5th place:** C4 'Power System Technical Performance' (Leading scientific and engineering partner: NRU MPEI, Chief Executive: A. Shuntov) – 73.75 points
- **6th place:** C1 'Power System Development and Economics' (Leading scientific and engineering partner: INRTU, Chief Executive: K. Suslov) – 58 points
- **7th place:** D2 'Information Systems and Telecommunication' (Leading scientific and engineering partner: RTSoft, Chief Executive: O. Sinenko) – 53.75 points
- **8th place:** A3 'Transmission & Distribution Equipment' (Leading scientific and engineering partner: R&D Center at FGC UES, Chief Executive: I. Kosolapov) – 40.5 points

Activity assessment results of National Study Committees of RNC CIGRE

- **9th place:** A1 'Rotating Electrical Machines' (Leading scientific and engineering partner: Inter RAO, Chief Executive: V. Belyakov) – 37.5 points
- **10th place:** A2 'Power Transformers and Reactors' (Leading scientific and engineering partner: Togliatti Transformer, Chief Executive: A. Anufriev) – 33.25 points
- **11th place:** D1 'Materials and Emerging Test Techniques' (Leading scientific and engineering partner: Massa LLC ("Izolyator" Plant), Chief Executive: A. Slavinsky) – 28 points
- **12th place:** C5 'Electricity Markets and Regulation' (Leading scientific and engineering partner: NP Market Council Association, Chief Executive: O. Barkin) – 23.75 points
- **13th place:** C2 'Power System Operation and Control' (Leading scientific and engineering partner: SO UPS, Chief Executive: V. Dyachkov) – 23.5 points
- **14th place:** B2 'Overhead Lines' (Leading scientific and engineering partner: FGC UES, Chief Executive: E. Lyapunov) – 13.5 points
- **15th place:** B1 'Insulated Cables' (Leading scientific and engineering partner: TATCABLE, Chief Executive: F. Dinmukhametov) – 3.75 points
- **16th place:** C3 'Power System Environmental Performance' (Leading scientific and engineering partner: Inter RAO, Chief Executive: D. Demchenko) – 2.5 points

Statistics of collected materials

National Study Committees:

- Organization of international events: **10**
- Organization of national task forces: **14**
- Thesis papers of NSC members: **22**
- Participation in deployment of new technologies: **7 projects**
- Participation in development of:
 - national and international standards: **22**
 - federal laws: **2**
 - industry standards: **12**
 - company standards: **36**
 - Regulations by Russian Government and Federal Executive Authorities: **6**

Collective Members:

- Participation in national projects: **9 projects**
- DEW contribution: **33 projects**
- Organization of international events: **14**
- Organization of Russian events: **65**

Individual Members (incl. employees of Collective Members)

- Papers: **587**
 - of them international: **199**
- Scientific and technical publications: **32**

NSC: Organization of international events

- Research-to-practice conference 'Contemporary means of ensuring power quality in power networks and at consumers' (NSC A3)
- International conference 'Digital substation: IEC standard 61850' (NSC A3, NSC B3)
- I research-to-practice conference 'Experience and prospective use of power electronics and DC transmission for higher reliability of power networks and implementation of international projects' (NSC B4)
- II research-to-practice conference 'Experience and prospective use of power electronics and DC transmission for higher reliability of power networks and implementation of international projects' (NSC B4)
- International scientific and technical conference and exhibition 'Relay protection and automation of power systems 2017' (NSC B5)
- Session of international working group WG D1.52 in Moscow (NSC D1)
- Colloquium of CIGRE Study Committee (SC) D2 (NSC D2)
- II International research-to-practice conference 'Distributed generation: Present status and prospective development' (NSC C6)
- III International research-to-practice conference 'Distributed generation: Requirement of today' (NSC C6)
- International conference 'Captive generation as highly profitable business and tool for twofold cutdown of power costs' (NSC C6)

CM: Organization of international events

- International scientific and technical seminar on 'Methods and means for status assessment of power equipment' (PEIPK)
- International conference 'High skills for Russian power complex: Ensuring high quality professional training in fuel and energy companies' (PEIPK)
- International scientific and technical seminar on 'Methods and means for status assessment of power equipment' (PEIPK)
- Rudenko international scientific seminar, session 89 'Research and promotion of reliability of power systems' (PEIPK)
- Rudenko international scientific seminar, session 90 'Reliability of emerging power systems' (PEIPK)
- XXXII International Russian-Bulgarian scientific conference 'NDT 2017' (PEIPK)
- XXXIII International Russian-Bulgarian scientific conference 'NDT 2018' (PEIPK)
- IV International research-to-practice conference 'Monitoring technical condition of power facilities' (UPS Technical Inspection)
- 17th International Ural Conference on AC Electric Drives (ACED) (UrFU)
- International research-to-practice conference 'Towers and foundations for smart grids 2017' (FGC UES)
- International research-to-practice conference 'Towers and foundations for smart grids 2018' (FGC UES)
- ENES 2016 (FGC UES)
- Youth Day and Round Table 'Popularization of engineering professions, engineering and technical education and development of new technologies' of the International Forum on Energy Efficiency and Energy Development Russian Energy Week - 2017' (FGC UES / SO UPS)
- Round Table 'New professions in the electric power industry in the era of digital economy' at the Moscow International Education Fair (FGC UES / SO UPS)

NSC: Contribution to development of Federal Laws

- NSC B3: Draft Federal Law No. 35-FZ of March 26, 2003 'On electric power industry'
- NSC C5: Federal Law No. 522-FZ of December 27, 2018 'On amendments to a number of legislative acts of the Russian Federation due to development of electrical power metering systems in the Russian Federation'

National task forces

- NSC A1 'Applications of asynchronized machines in national and international power industry'
- NSC A1 'Systems for maintenance and repair of generators (concept, trends, outlooks)'
- NSC A1 'Applications of valve inductor machines with DC links in electrical power industry'
- NSC B4 'Feasibility study of using static and electromechanical FACTS devices'
- NSC B5 'Training repay protection and automation specialists'
- NSC B5 'Developing PMU technology for monitoring, protection and control'
- NSC B5 'RPA facilities with flexible functional architecture'
- NSC B5 'Developing the Digital Substation technology'
- NSC B5 'Reliability of RPA complexes'
- NSC B5/D2 'Cyber security issues in RPA'
- NSC C5 'Contemporary methods of analysis and forecast for functioning and development of wholesale electricity and power market'
- NSC C5/C6 'Prospective participation of distributed generation in power markets'
- NSC C6/D2 'Active-adaptive power distribution network'
- NSC D2 'Information analysis systems for power network equipment lifecycle management'

NSC: Participation in deployment of new technologies

- NSC B5: R&D work 'Efficiency analysis of using WAMS data in status assessment programs' 2017-2018
- NSC B5: Creation of universal software for performance monitoring of automatic field regulators and excitation systems of asynchronous generators of power substations (UPO SMSR) 2017-2018
- NSC B5: Development and deployment at SO UPS of the software for dynamic performance monitoring in UES of Russia using WAMS data in 2017-2018
- NSC B5: Modification of stability margin monitoring PC software to use information from phasor measurement units in the algorithms. Deployment of the modified software at Black Sea RCD
- NSC D2: Development and deployment of automated software package for calculation of emergency modes and selection of settings for relay protection and automation devices (RPA SW) for RusHydro
- NSC D2: R&D 'Development and deployment of automated RPA performance monitoring and analysis system for diagnostics and reliable telecontrol' for FGC UES
- NSC D2: Implementation of AMIGO INFORMATION & CONTROL SYSTEM at AKOM Group plant

CM: Participation in national projects

- FGC UES: Pilot projects under the Innovative Development Program of FGC UES by resolution of the Russian Ministry of Energy have been included into the National Projects 'Energy Efficient Substation' and 'Development and deployment of super-conductor technologies in Russian Fuel and Energy Sector' and 'Energy efficiency'
- SO UES: Within the Road Map titled 'Implementation of innovative technologies and advanced materials in power sector industries' for the period up to 2018 approved by resolution of the Government of the Russian Federation no. 1217-r of July 3, 2014, participating in the work of selecting national projects in the power industry
- SO UES: Participation in the working group activity for development and implementation of the EnergyNet road map of the National Technology Initiative
- SO UES: Development/update and follow-up of international and national standards
- FGC UES/SO UPS: Award of the President of the Russian Federation in the field of science and innovations for young scientists in 2016
- FGC UES/SO UPS: Supporting participation of the international CIGRE team in the XIX World Festival of Youth and Students WFYS2017
- UrFU: National project 'Education'. Project for improvement of competitiveness of Russia's leading universities among the world's leading research and educational centers 5-100
- UrFU: National project 'Science'. Creation of a research and educational center
- OEK: Development and implementation of superconductor technologies in the fuel and power complex of the Russian Federation

Thank you!



cigre

For power system expertise