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Discriminant Analysis Applied to Induction Motors ([Paper Id 813](#))

Juan Jose Saucedo-Dorantes, *Universidad Autonoma de Queretaro, MEXICO*; Roque Alfredo Osornio-Rios, *Universidad Autonoma de Queretaro, MEXICO*; Miguel Delgado-Prieto, *Universitat Politecnica de Catalunya, SPAIN*; René de Jesús Romero-Troncoso, *Universidad de Guanajuato, MEXICO*

524 Improved High Resolution Estimation Approach for Rotor Fault Diagnosis ([Paper Id 831](#))

Zijian Liu, *Zhejiang University, CHINA*; Jin Huang, *Zhejiang University, CHINA*

531 Diagnosis of Induction Machines Using External Magnetic Field and Correlation Coefficient ([Paper Id 954](#))

Miftah Irhoumeh, *Université d'Artois, FRANCE*; Remus Pusca, *Université d'Artois, FRANCE*; Eric Lefevre, *Université d'Artois, FRANCE*; David Mercier, *Université d'Artois, FRANCE*; Raphael Romary, *Université d'Artois, FRANCE*

Materials**537 Investigation of Traction Motor Windings' Insulation Capacitance at Switching Frequencies under Accelerated Thermal Stress ([Paper Id 859](#))**

Panagiotis Panagiotou, *Coventry University, UNITED KINGDOM*; Konstantinos Gyftakis, *Coventry University, UNITED KINGDOM*; Neophytos Lophitis, *Coventry University, UNITED KINGDOM*; Malcolm McCulloch, *University of Oxford, UNITED KINGDOM*; David Howey, *University of Oxford, UNITED KINGDOM*

544 The degradation depth of electrical steel sheets due to mechanical and laser cutting ([Paper Id 894](#))

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550 Investigation of Equivalent Stator Winding Thermal Resistance during Insulation System Ageing ([Paper Id 928](#))

Samuel Williamson, *University of Bristol, UNITED KINGDOM*; Rafal Wrobel, *University of Bristol, UNITED KINGDOM*; Jason Yon, *University of Bristol, UNITED KINGDOM*; Julian Booker, *University of Bristol, UNITED KINGDOM*; Philip Mellor, *University of Bristol, UNITED KINGDOM*

557 Measurement of the Thermal Characteristics of a Stator-Housing Interface ([Paper Id 943](#))

Nick Simpson, *University of Bristol, UNITED KINGDOM*; Tom Duggan, *University of Bristol, UNITED KINGDOM*; Philip Mellor, *University of Bristol, UNITED KINGDOM*; Julian Booker, *University of Bristol, UNITED KINGDOM*

565 Physical parameterisation of 3C- Silicon Carbide (SiC) with scope to evaluate the suitability of the material for power diodes as an alternative to 4H- SiC ([Paper Id 944](#))

Anastasios Arvanitopoulos, *Coventry University, UNITED KINGDOM*; Neophytos Lophitis, *Coventry University, UNITED KINGDOM*; Konstantinos Gyftakis, *Coventry University, UNITED KINGDOM*; Manuel Belanche Guadas, *Universitat Politècnica de València, SPAIN*; Samuel Perkins, *Coventry University, UNITED KINGDOM*; Marina Antoniou, *University of Cambridge, UNITED KINGDOM*

Thermographic analysis techniques for fault monitoring and diagnosis in electric machines (SS4)

572 Segmentation in Thermography Images for Bearing Defect Analysis in Induction Motors ([Paper Id 819](#))

Emmanuel Resendiz-Ochoa, *Universidad Autonoma de Queretaro, MEXICO*; Roque Alfredo Osornio-Rios, *Universidad Autonoma de Queretaro, MEXICO*; Juan Primo Benitez-Rangel, *Universidad Autonoma de Queretaro, MEXICO*; René de Jesús Romero-Troncoso, *Universidad de Guanajuato, MEXICO*; Luis Alberto Morales-Hernandez, *Universidad Autonoma de Queretaro, MEXICO*

578 Infrared Thermography-based Automatic Assessment of Control Components for Electric Machines ([Paper Id 869](#))

Maria A. Herrera-Arellano, *Universidad Autonoma de Queretaro, MEXICO*; Ivan R. Terol-Villalobos, *Universidad Autonoma de Queretaro, MEXICO*; Luis Alberto Morales-Hernandez, *Universidad Autonoma de Queretaro, MEXICO*; Martin Valtierra-Rodriguez, *Universidad Autonoma de Queretaro, MEXICO*

585 Defects detection in laminated and Soft Magnetic Composites devices with a novel thermographic method ([Paper Id 916](#))

Luca Ferraris, *Polytechnic of Turin, ITALY*; Emir Poskovic, *Polytechnic of Turin, ITALY*; Fausto Franchini, *Polytechnic of Turin, ITALY*

591 Use of isothermal representation for infrared-based fault detection in induction motors ([Paper Id 955](#))

María José Picazo-Ródenas, *Clinical University Hospital, SPAIN*; Pau Redón, *CIBER, SPAIN*; David Lopez Perez, *MEISA, Proy y Mant. Eléctricos, Mecánicos y de Ins, SPAIN*; Jose Antonino-Daviu, *Universitat Politècnica de València, SPAIN*; Hubert Razik, *Université Claude Bernard Lyon 1, FRANCE*

600 Reliable methodology for online fault diagnosis in induction motors using passive infrared thermography ([Paper Id 967](#))

Pau Redón, *CIBER, SPAIN*; María José Picazo-Ródenas, *Clinical University Hospital, SPAIN*; René de Jesús Romero-Troncoso, *Universidad de Guanajuato, MEXICO*; Jose Antonino-Daviu, *Universitat Politècnica de València, SPAIN*

Reliability of capacitors for power electronics and drives applications (SS3)

608 Impact of bending speed and setup on flex cracks in multilayer ceramic capacitors ([Paper Id 765](#))

Caroline Andersson, *ABB Corporate Research, SWITZERLAND*; Ole Kristensen, *ABB Corporate Research, SWITZERLAND*; Elise Varescon, *ABB Corporate Research, SWITZERLAND*; Francesco Iannuzzo, *Aalborg University, DENMARK*

615 Reliability-oriented Design of Cost-effective Active Capacitor ([Paper Id 771](#))

Haoran Wang, *Aalborg University, DENMARK*; Huai Wang, *Aalborg University, DENMARK*

622 Acoustic detection of cracks and delamination in Multilayer Ceramic Capacitors ([Paper Id 926](#))

Saku Levikari, *Lappeenranta University of Technology, FINLAND*; Tommi Kärkkäinen, *Lappeenranta University of Technology, FINLAND*; Caroline Andersson, *ABB Corporate Research, SWITZERLAND*; Juha Tamminen, *ABB Oy, FINLAND*; Pertti Silventoinen, *Lappeenranta University of Technology, FINLAND*

Induction machines III Additional Papers:

628 Low computational cost algorithm for detecting rotor asymmetries in IM based on the negative sequence component of the startup currents ([Paper Id 986](#))

Jordi Burriel-Valecia, *Universitat Politècnica de València, SPAIN*; Martin Riera-Guasp, *Universitat Politècnica de València, SPAIN*; Rubén Puche-Panadero, *Universitat Politècnica de València, SPAIN*; Ángel Sapena-Baño, *Universitat Politècnica de València, SPAIN*; Manuel Pineda-Sánchez, *Universitat Politècnica de València, SPAIN*; Javier Martínez-Román, *Universitat Politècnica de València, SPAIN*

635 Online Estimation of Remaining Useful Life of Stator Insulation ([Paper Id 794](#))

William Jensen, *Michigan State University, UNITED STATES*; Elias Strangas, *Michigan State University, UNITED STATES*; Shanelle Foster, *Michigan State University, UNITED STATES*

642 3-D Simulation of a Rotor Suffering a Bar Breakage ([Paper Id 826](#))

Vicente Climente-Alarcon, *Aalto University, FINLAND*; Antero Arkkio, *Aalto University, FINLAND*; Jose Antonino-Daviu, *Universitat Politècnica de València, SPAIN*

649 Modeling and Simulation of Stator and Rotor Faults of Induction Motor and their Experimental Comparison ([Paper Id 871](#))

Sanjeet Kumar Dwivedi, *Danfoss Power Electronics A/S Denmark, DENMARK*; Jorg Dannehl, *Danfoss Power Electronics A/S Denmark, DENMARK*

Additional Paper:

656 Reliability of DC-ink Capacitor in Hybrid Electric Vehicle under Urban and Highway Road Conditions