

**Dept of Electrical Engineering**  
**IIT Kanpur**

**Annual Report on Patents, Papers and Projects**

**2004-2005**

## **PATENTS**

**G. C. Ray**

Patent on "Anaesthesia Monitor" :

Provisional Patent (No. 167/DEL/2004) February, 2004.

**S. P Das, K. S. Venkatesh, Pankaj Agarwal, and Rajendu Choubisa**

“Design and Development of a Power Supply for Personal Computer (Built-in UPS or BUPS) in Place of a Conventional SMPS and UPS Combination”

Submitted on 26<sup>th</sup> July 2004

**Animesh Biswas**

“Dielectric Resonator”

Application No:1972/DEL/2004

Co-Investigators:K.V.Srivastava and V.V.Mishra

## **BOOKS AND RESEARCH MONOGRAPHS**

**Joseph John**

Book: Virtual Instrumentation using LABVIEW : Sanjay Gupta & Joseph John, Tata Mc Graw Hill, New Delhi.

**L. Behera**

M. Palaniswami, C. Chandra Sekhar, Laxmidhar Behera, B Ravindran, Hema A Murthy and M Rama Subba Reddy (Editors), 2005 International Conference on Intelligent Sensing and Information Processing, 4-7 January 2005, Chennai – India, ISBN 0-7803-8840-2, IEEE Catalog Number – 05EX979.

## JOURNAL PAPERS

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9. S. C Srivastava and S.N. Singh "Status and Future Directions of Electric Power Industry Restructuring in India", *CPRI R&D Journal*, Vol. II, 2005.
10. R.P.Gupta and S.C. Srivastava, "Technology Development and Implementation for Power Distribution Automation System", *Water & Energy International Journal (published by CBIP, New Delhi)*, Vol. 61, pp. 40-47, October-December 2004.

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14. R. P. Gupta and S.C. Srivastava, "Technology Development and Implementation for Power Distribution Automation System", *Water and Energy International Journal, India*, Vol. 61, pp. 40-47, Oct-Dec 2004.
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## PROJECTS

<b>S. No.</b>	<b>Title</b>	<b>Sponsoring agency</b>	<b>Faculty</b>	<b>Co-Investigators</b>
1	Theoretical and Experimental Investigation into an Artificial Tree Channel in High Voltage Polymeric Insulation	DST under DST-SERC Fast Track program for Young Scientists	Nandini Gupta	
2	Experimental Investigation into the Mechanisms of Electrical Treeing in High Voltage Cable Insulation	MHRD under R&D scheme	Nandini Gupta	
3	Modeling of the Gaseous Discharge in Stationary Plasma Thruster	DIT, Ministry of Communication and Information Technology, New Delhi	Nandini Gupta	
4	Development of Independent Component Analysis Based Blind Source Separation Algorithms for Audio / Image Separation.	BESCOM, Bangalore	P.K. Kalra	Pradip Sircar & L.Behera
5	Development of Cost to Serve (CoS) MODEL for BESCOM, Bangalore	CRISIL Limited Mumbai	P.K. Kalra	-
6	Development of IT-enabled Trading system for NVVN and setting up of Power Exchange at National Level.	CHIPS Raipur	P.K. Kalra	-
7	Development of Application for Printing of MAPS	MHRD	P.K. Kalra	-
8	Modeling of Human Perception through Eye-Movement Matrices and Visual-Motor Control	NBRC, Gurgaon	P.K. Kalra	-
9	Development of Methodologies for Extracting Information from the Neuro-Informatics Data	IISU, ISRO	P.K. Kalra	-
10	Modeling, Classification and Fault Detection of Sensors using Intelligent Methods		P.K. Kalra	-
11	A Utility Friendly Four Quadrant Induction Motor	Department of Science and	S. P. Das	

	Drive System for Traction and Industrial Applications.	Technology, NewDelhi, 2002,		
12	Custom Power and Improvement of Power Quality at Critical Load Centers in the Distribution Network	Ministry of HRD, Govt. of India	P. Sensarma	
13	National Mission Project on Power Electronics Technology (a Nationwide effort of premier institutes to design, develop and deploy Power Electronics Technology)	Ministry of Communications and IT, Govt. of India	P. Sensarma	A. Ghosh, A. Joshi, S. P. Das
14	Strategies for Promotion of Energy Efficient and Cleaner Technologies in the Power Sector	AIT, Thailand	S.C. Srivastava	S.N. Singh, Anoop Singh
15	Enhancement of Power Systems' performance using FACTS in competitive power market.	CPRI Bangalore, (MoP)	S.C. Srivastava	S.N. Singh
16	Assessment and Analysis of Electric Power Quality Problems using Artificial Intelligence and Advanced Digital Signal Processing Techniques	DST, New Delhi	S.C. Srivastava	S.N. Singh
17	A Multipurpose Talking Aid for the Blinds	Ministry of Human Resource Development	G. C. Ray	-
18	Development of anisotropic ceramic dielectric resonator for miniature microwave circuit application.	DST, New Delhi	Animesh Biswas	-
19	Custom Power and Improvement of Power Quality at Critical Load Centers in the Distribution Network.	Ministry of HRD, Govt. of India	P. Sensarma	-
20	National Mission Project on Power Electronics	Ministry of Communications	P. Sensarma	A. Ghosh, A. Joshi, S. P.

	Technology (a nationwide effort of premier institutes to design, develop and deploy Power Electronics Technology)	and IT, Govt. of India		Das
21	Evaluation of organo-fullerene Based material for photo sensing photovoltaic & electro luminescence properties	DMSRDE(DRDO)	R.S. Anand	S.K Iyer
23	Integration of Silicon and Organic Semi conductors For Light Emission	MHRD	R.S.Anand	J. Narain
24	Design and Development of Indoor and Outdoor wireless links for high speed data communications	MHRD project R&D project	Joseph John	-