



**IEEE INDIA COUNCIL**  
**M.V. CHAUHAN STUDENTS' PAPER CONTEST 2002**

Prof. S.C. Gupta  
M.E., PhD, SMIEEE, FIETE  
Chairman SAC  
IEEE India Council

email: [s.c.gupta@ieee.org](mailto:s.c.gupta@ieee.org)  
Phone: 0542-575177  
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The **M.V. CHAUHAN STUDENTS' PAPER CONTEST** is organized in the memory of Mr. M.V. Chauhan, Past Region Director, who left us on April 10, 1991. Mr. Chauhan was instrumental in giving a big push forward to the students activities in IEEE.

The first Contest was held in August 1992. After a little break, it was revived in 1999. Over the years, the prize money for the first three papers has been enhanced to Rs. 6000, 4000 and 3000. In addition, first authors of the top three papers are invited to present their papers in the ACE - the Annual Convention & Exhibition of IEEE India Council - which is scheduled in Kolkata on December 20<sup>th</sup> and 21<sup>st</sup> this year.

MVC Students' Paper Contest 2002 has witnessed overwhelming response. **Sixty-nine papers** from IEEE Student Members of **thirty-six institutes** have been received. This amounts to roughly **THREE FOLD** increase from earlier years in both, number of papers and participating institutes.

All the papers were read and evaluated by a team four judges. Participants ranged from under-graduate students to research scholars. As many papers of very high quality couldn't be included for prizes, the judges have, in addition, recommended **twenty six** papers for **Merit Certificates**. **One** paper has been selected for **special award**.

The Students' Activities Committee of the IEEE India Council congratulates the authors who have won Prizes, Special Award, and Merit Certificates. We thank all the participants for their excellent efforts and wish them best in their future endeavors.

The contest could not have succeeded without the efforts and encouragement of various officials of the IEEE. Special thanks are due to

the Counselors of the IEEE Students Branches and administrative officials of the participating Institutes.

Evaluating such a large number of papers, covering all the areas of research in electrical engineering, in the short available time has been very taxing indeed. My special thanks to Professors J. N. Sinha, P. Chakravarti and A.K. Agrawal of Departments of Electrical, Electronics and Computer Engineering, respectively.

### **Results:**

**First Prize:** “A Microprocessor based Speech Recognizer for Isolated Hindi Digits”, Ashutosh Saxena and Abhishek Singh, IIT Kanpur.<ashusax@iitk.ac.in>

**Second Prize:** “A Faster implementation of Interval Newton Method as Reconfigurable Hardware”, Nirav Shah, Sardar Patel College of Engineering, Mumbai.  
<nirav@ieee.org>

**Third Prize:** To be shared by:

- “The Array Based Spatial Cryptosystem”, Saugat Tripathy and Deepak Bansal, Delhi College of Engineering, Delhi.< saugat@ieee.org, dbansal\_00@yahoo.com>
  
- “Color Based Image Segmentation using Mahalanobis Distance in the YCbCr Color Space for Gesture Recognition”, Mayank Bomb, IT-BHU, Varanasi.<mayank\_bomb@yahoo.com>

**Special Award:** “Conservation of the ‘Individuality’ of Communication Signals by the Sensory Neurons”, Shireesh Reddy Annam, IIT Kanpur. <annamshr@ieee.org>

**Merit Certificates:** The list of authors of the meritorious papers is:

- "The array based spatial cryptosystem", Deepak Bansal, Saugat Tripathy
- "Offline Hand Written cursive script recognition", Ashish Gupta
- "Advanced Design and Modelling of SiGe-HBTs for RF Applications", A. Chakravorty
- "Machine Day Dreaming: Self re-arrangement of long term memories", Hrishikesh Rajpathak
- "Equivalent Circuit modelling of Linear Induction Motor with End Effect and Skin Effect Compensation", Akshay Kumar Rathore
- "An Efficient hardware Realization of minimum Shift Keying Modulation Scheme", B Surendra and B Srinivas
- "A Bilingual OCR System for Indian Languages", M N S S K Pavan Kumar, S S Ravi Kiran
- "Precision- Power Trade off in Reconfigurable Multipliers", Aakash Agrawal
- "Design of a user level resource manager for real-time operating systems", Jagrut D Dave

- "An Application of Microbial Genetic Algorithm for VLSI Card", Jay kumar Sundararajan, Sumanth Jagannathan
- "Method and System for software Piracy Prevention using Computer information Validation and external memories", G Kalyana Sundaram
- "Adaptive Hybrid Neuro - Fuzzy Power System stabilizer", Surbhi Agarwal, Tanu Khanna
- "An Introduction to Electronically Steered Arrays for Airborne Platforms", Aditya Mandrekar
- "An analysis of the Space Elevator", Vinit Mahadevan
- "Remote Heart Beat Monitoring System", G. Harwinder Singh, N. Gayathri Devi, Sujith Philip
- "Image Compression using Wavelet Transform", Mrs. Subhlaxmi Hingway
- "Online Recognition of Handwritten Telgu Characters", M Srinivas Rao
- "Robust Data Hiding for Images", Swati Regulpati, Prashant Bhojar
- "Implementation of Facts Devices in Transient Stability Program", Nagaraju Dola, Vinod Kumar Yedidi, Karuna Kadapala
- "Segmentation of Speech Units: An Approach to PC Based Speech Synthesis", R. V Arun Prasad
- "Embedded Microcontroller Based Web Enabled Devices", Aru. Kamal Anandh, R. Kamalakannan
- "UNL(Universal Networking Language)", Sunanda Prabhugaunkar, Smitha Pisupati, Neha Rao
- "Vectored Image Encapsulation", Deepak Bhusan
- "Reliability Evaluation of weighted consecutive W-out-of-N: G Systems", Aviral Pandey
- "Cryptographic Security on Session layer and TLS An Analysis", Rohit Kumar Modi
- "Fuzzy logic based Routing Algorithm for Ad hoc Wireless Networks", S. Moinuddin, G Tyagi and M.S Akhlaque
- "BEARCAT: Obstacle Sensive Fuzzy Logic Controlled Automated Guided Vehicle", Prakriti Singh, Karshma Bagga

S.No	Participating Institutes
1.	DCE, Delhi
2.	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
3.	G H Raison College of Engineering., Nagpur
4.	IIT Hyderabad
5.	IIT Kanpur
6.	IIT Kharagpur
7.	IIT Madras
8.	IIT Guwahati
9.	Inst. of Engg and Tech., Davv, Indore
10.	IRTT, Erode
11.	Institute of Technology, BHU, Varanasi
12.	Jamia Milia New Delhi
13.	JNTU College of Engg, Hyderabad
14.	MACT Bhopal
15.	MAE College of Engineering, Pune
16.	Mepco Schlenk Engineering College, Sivakasi
17.	Nirma Inst. of Tech. Ahmedabad

18.	NIT Kurukshetra
19.	Parshvanath College of Engg., Mumbai
20.	PSG College of Technology, Coimbatore
21.	Rizvi College of Engg., Mumbai
22.	Sardar Patel College of Engg, Mumbai
23.	SGSITS, Indore
24.	Shah and Anchor Kutchi Engg. College, Mumbai
25.	Sinhgad College of Engineering, Pune
26.	SISTAM-College of Engineering, Srikakulam
27.	Sri Ramakrishna Engineering College, Coimbatore
28.	Sri Sairam Engg. College, Chennai
29.	Sri Vaishnav Instt. Of Tech. & Science, Indore
30.	SRM Engineering College, Kattankolathur, Kancheepuram
31.	Thiagarajar College of Engg. , Madhurai
32.	Veltech Engineering College, Chennai
33.	VES, Institute of Technology, Mumbai
34.	Vidyavardhini College of Engg and Tech, Mumbai
35.	VNR Vignana Jyothi Inst. Of Engg. And Tech., Mumbai
36.	Y.C.C.E, Nagpur