RESSUME OF Prof. MOHD SUHAIB



PERSONAL INFORMATION

Name : Dr. Mohd Suhaib

Designation : Professor

Office Address : Department of Mechanical Engineering,

Faculty of Engineering and Technology

Jamia Millia Islamia, New Delhi 110025, INDIA

Residential address : B-114, Khan Abdul Gaffar Khan Enclave

Jamia Millia Islamia, Jamia Nagar

New Delhi 110025, INDIA

Date of Birth : 8th March,1967

Fathe'rs Name : Mr. Abad Ahmed

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RESEARCH INTEREST

- i) Machine Design.
- ii) Computer Aided Design & CAE
- iii) Robotic Grasping & Manipulation.
- iv) Multi Finger Robotic Hands.
- v) Flexible Manufacturing System.
- vi) CAD/CAM

EDUCATION

Doctor of Philosophy (Ph.D) Completed Ph.D from Department of Mechanical

Engineering, Faculty of Engineering and Technology Jamia Millia Islamia, New Delhi

110025, INDIA, (2004).

Doctoral Thesis topic "Studies in Robotic Grasping"

M. Sc. Engg. (Machine Design) Passed M. Sc. Engg. From Z. H. College of

Engineering and Technology, A.M.U., Aligarh,

India, (1993).

B.Sc. Engg.(Mechanical Engg.) Passed B. Sc. Engg. From Z. H. College of

Engineering and Technology. A.M.U., Aligarh,

India, (1990).

TEACHING EXPERIENCE

Professor, Department of Mechanical. Engineering, Jamia Millia Islamia, New Delhi, India, (17 July 2011-till date)

Associate Professor, Department of Mechanical. Engineering, Jamia Millia Islamia, New Delhi, India, (17 July 2008-16 July 2011)

Reader, Department of Mechanical. Engineering, Jamia Millia Islamia, New Delhi, India ,(17 July 2005-16 July 2008)

Senior Lecturer, Department of Mechanical. Engineering, Jamia Millia Islamia, New Delhi, India , (17 July 2000-16 July 2005)

Lecturer, Department of Mechanical. Engineering, Jamia Millia Islamia, New Delhi, India ,(15 Oct. 1993-16 July 2000)

COURSES TAUGHT

Under graduate Level: Engineering Drawing, Engineering Mechanics, Engineering Materials, Solid Mechanics, Stress Analysis, Elements of Mechanical Engineering, and Theory of Machines, Machine Design-I, Machine Design-II, Machinery Dynamics, Mechanical Vibrations,

Postgraduate Level: Robotics, Industrial Automation, Mechatronics,.

Laboratory Courses: CAD/CAM (U.G Lab), Manufacturing Automation (U.G Lab), Material Science (U.G Lab), Engineering Mechanics (U.G Lab), Stress Analysis (U.G Lab), Machine Dynamics(U.G Lab), Robotics & CIM (P.G Lab).

COMPUTER SKILLS

Languages:

- I) FORTRAN
- II) BASIC
- III) C-Language

Software:

- I) Auto-CAD
- II) Pro/E
- III) CATIA
- IV) ROBO Simulator (ATS-ACL)
- V) CNC Simulator (MTAB-DENFORD)
- VI) OPEN-CIM

Ph.D SUPERVISION

S. N	Name of Student	Ph.D. Title	Year of Completion	Name of Co- Supervisor
1	Dr. Tilak Raj	Study of Barriers & Enablers of Transition to Flexible Manufacturing System	2008	Prof. Ravi Shanker IIT Delhi
2	Dr. Mudar Dayoub	Some studies on the Principles and Mechanism for loading and Unloading		Prof. R.A Khan JMI, N. Delhi
3	Ms. Nazma	Stability Studies in Multifinger Robotic Grasping	In Progress	Prof. Sudipto Mukherjee, IIT Delhi
4	Mr. Devendra Singh	Improved Design of the Gear Drives	In Progress	

M. Tech. DISSERTATION AND B. Tech. PROJECT SUPERVISION

M.Tech	Completed-02	In Progress-01
B.Tech	Completed-20	In Progress-01

MEMBERSHIP OF PROFESSIONAL BODIES:

- 1. Life Member of Indian society for Technical education.
- 2. Life Member of Institution of engineers India.
- 3. Life Member of Indian Society for Mechanical Engineers.
- 4. Life Member of Material Research Society of India.
- 5. Member Robotic Society of India.
- 6. Member American Society of Mechanical Engineers.

CONFERENCES & SEMINARS ATTENDED

- i) International Conference of Mechanical Engineering (ICME-11),6-8 July, 2011 Imperial College London, U K.
- ii) 7th Internation Symposium on Mechatronics & its Applications (ISMA'10), American University, Sharjah, U A E.
- iii) International Conference on Emerging & Futuristic System & Technology, pp. (ICE-FST'09) LEIT, Tijara, Rajasthan, India.
- iv) International conference on control, Instrumentation & Mechatronics held on 28-29 May 2007 at PJ International convention centre, Johar Malaysia.
- v) International conference on Advances in Machine Design & industry Automation at Department of Mechanical Engineering, College of Engineering Pune-411005, Maharashtra, India, Jan 10-12, 2007.
- vi) National conference on Recent Advances in computer Aided Engineering, at Department of Mechanical Engineering, University College of Engineering, Osmania University Hyderabad, India. March 3-4,2006.
- vii) National conference on Recent Trends in Design and Manufacturing Technologies, Department of Mechanical Engineering, Kumaraguru College of Technology, Coimbatore, Tamil Nadu. March 17-18,2005.
- viii)National conference on Development and challenges in Manufacturing Engineering-2004. Deptt. O f Mech. Engg. MIT Manipal, March 18-20, 2004.
- ix) XIIth ISME National Conference IIT Roorkee, Dec 30-31,2003.
- x) Recent Advances in Materials Processing RAMP-2001, Annamalai University, Annamalai Ngr, Tamil Nadu, Sept 7-8,2001.
- xi) IT For All Emerging Challenges, F/O Engg. & Tech Jamia Millia Islamia New Delhi-25, 9 Nov 2000
- xii) Patent Awareness Work Shop F/O Natural Science, Jamia Millia Islamia New Delhi-25, 11 Oct 2000.
- xiii)World Class Manufacturing-2000, National Conference, Mechanical Engg. Deptt. B.I.E.T Jhansi, 18-19 August 2000.
- xiv) International Conference on CAD, CAM, Automation & Robotics of Future (INCARF'96 Jamia Millia Islamia New Delhi-25, Dec 17-20, 1996.

SHORT TERM COURSES ATTENDED

- i) One Week Intensive Teaching Workshop-2009, BITS Pilani, Dubai, UAE
- ii) One Week Introduction to Practical Electro Pneumatics-2007,SMC NOIDA,India
- iii) One Week Training on **Integrated CAD/CAM** Attended from 4 to 8th July 2005 at NITTTR Chandigarh, India.
- iv) Two Weeks Training on Introduction to office XP and computer applications attended from 6-17th Dec, 2004 ,at GB Pant Univ of Agriculture & Tech. Pantnagar ,India.
- v) One Week Training On **CNC Programming** attended from 16 to 20th Dec 2002. At NSIT New Delhi, India.
- vi) Two Weeks SERC School on **Precision Engineering** from 10 to 19th June 2002 at IIT Kanpur, India.
- vii) Two Weeks Training on **CNC Machine Tool** from 18 to 29th December 2001at HI-TECH Vocational Training Centre Govt. of NCT Delhi, India.
- viii)Four Weeks **Orientation Program** from 7th July-3rd August, 2000 at Academic Staff College, Jamia Millia Islamia, New Delhi, India.
- ix) One Week Training on **Advanced Topics in Robotics** from July 27-31, 1998 at IIT, Kanpur, India.
- x) One Week Training on **Effective Professional Communication** from July 7-11,1997at IIT Kanpur, India.
- xi) Two Weeks Training on Repair & Maintenance of Computer & its Peripherals from April 11-23,1994,at DIT, DELHI., India.
- xii) One Week Training on **Instructional Methodology** from June 6-11,at IIT DELHI.,India.
- xiii)Two Weeks Training on **Computer Application** from May 18-28, at NSIC, N.DELHI.
- xiv) One Week Training on **Computer Aided Drafting (CAD)** from May $29^{th} 2^{nd}$ June 1992,at NSIC, N.DELHI., India.
- xv) One Week Training on **CNC Technology** from June 3-5,1992,at NSIC, N.DELHI. ,India.
- xvi) Six Months Basic Course in **Computer Application & Programming**, from May 15th 15th Nov.1991, at ICPC Aligarh., India.

ORGANIZATION OF SEMINARS, SYMPOSIA AND WORKSHOPS

Organizing Secretary of a national conference "Advances In Mechanical Engineering" (AIME-2006) held on 20-21 January 2006 at Department of Mechanical Engineering. F/O Engg. & Tech. Jamia Millia Islamia, New Delhi-25.

Member of organizing committee of "Third Global Conference on Flexible Systems Management" held on March 13-15,2004,F/O Engg. & Tech. Jamia Millia Islamia, New Delhi-25.

Coordinator of Short Term Training Programme on "Auto CAD" held from Aug-23 to Sept-03, 2004, at Department of Mechanical Engineering. F/O Engg. & Tech. Jamia Millia Islamia, New Delhi-25

Coordinator CATIA Training Programme from Dec-18 to Dect-29, 2006, at Department of Mechanical Engineering. F/O Engg. & Tech. Jamia Millia Islamia, New Delhi-25

LABORATORY DEVELOPMENT

Developed of Robotics & Automation Laboratory (Which consists of Robots CNC Machines, Pneumatic control system, PLC etc.) in the department of Mechanical Engineering, Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi-25

Involved in the initial development of Engineering Mechanics, Strength of Materials & Material Science Laboratories in the department of Mechanical Engineering, Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi-25

Involved in the development of CAD/CAM Laboratory (Which consists of software like CATIA, Pro/E, Master CAM, Del CAM etc.) in the department of Mechanical Engineering, Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi-25

INDUSTRY/ACADEMIC PROJECT COMPLETED

S. NO	Name of Project	Awarded by
1	Some studies of Robotic Grasping	UGC Unassigned Grant, New Delhi, 2000-2001
2	Design & Development of parallel jaw Gripper	Degitech Systems, New Delhi. 2003-2004

CONTRIBUTATION TO ACADEMIC AND OTHER ACTIVITIES

University Level

- Assistant Provost, Hall of Boys Residence, Jamia Millia Islamia, New Delhi, India. (2007,2010)
- **Senior Warden,** FRK Hostel, Hall of Boys Residence, Jamia Millia Islamia, New Delhi, India. (2011)
- **Senior Warden,** BRA Hostel, Hall of Boys Residence, Jamia Millia Islamia, New Delhi, India. (2006)
- Control Room Superintendent for 38 Centres (34 Delhi/NCR +2 Lucknow + 1 Patna + 1 Srinagar) B.Tech. Entrance -2003 Jamia Millia Islamia, New Delhi.
- Center Supdt. for B.Tech Entrance Test of Jamia Millia Islamia, New Delhi, India, (2004, 2006, 2007, 2011).
- Center Supdt UGC NET Test (2005, 2006, 2007, 2010, 2011).
- Member university flying squad for smooth conduction of Annual/semester examination. (2001,2002,2004).
- Assistant Proctor of Jamia Millia Islamia, New Delhi, India.(From Aug 2000 to May 2005)
- Assistant Suptd. for B.Tech Entrance Test of Jamia Millia Islamia, New Delhi, India, from 1995 to 2002.

Faculty Level

- Coordinator AICTE work of online Portal for EOA of faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi
- **Coordinator**, Training and for UG Students, faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi
- **Member** Prospectus committee, faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi-25
- Member, Sports Committee. faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi-25

Department Level

- Incharge, Robotics & Automation Laboratory.
- Member, Sub-purchase Committee.
- Advisor Subject association.
- In charge Industrial Tours.
- Co-Faculty Advisor of ASME students Chapter
- Special Invitee, Research Board.
- **Member** for preparation of M.Tech. proposal

CHAIRMANSHIPS AT NATIONAL/INTERNATIONAL CONFERENCES

S. No.	Academic Session	Title of Conference / Seminar	Organized by
1	Session Chair	The 2011 International Conference of Applied & Engineering Mathematics	International Association of Engineers (WCE-2011) at Imperial College London, UK
2	Session Chair	The 2011 International Conference of Signal & Image Engineering	International Association of Engineers (WCE-2011) at Imperial College London, UK
3	Session Chair	International conference on control, Instrumentation & Mechatronics (ICME-07) 2007.	University of Technology, Johar Baru, Malaysia
4	Session Chair	National Conference on Advances in Mechanical engineering (AIME 2006), January-20-21, 2006.	Jamia Millia Islamia, New Delhi, India.

BOOKS PUBLISHED / EDITED

S. NO	Name of Book	Name of Publisher	ISSN/ ISBN No Publisher	Author(s) Name
1	Advances in Mechanical Engineering	ANE Publishing, New Delhi	ISBN 81-8052- 105-2	Prof. R.A. Khan Dr. Mohd. Suhaib
2.	Constitution of India & Professional Ethics	I.K International, New Delhi	ISBN:81-89866- 01-X	Prof. G Ready Dr. Mohd Suhaib

LIST OF RESEARCH PAPERS PUBLISHED

- 1. Paper entitled "Contact Force Optimization for Stable Grasp of Multifinger Robotic grippers", was presented and subsequently published in the proceedings of International Conference of Mechanical Engineering (ICME-11), pp.2194-2197,6-8 July, 2011 Imperial College London, U K.
- 2. Paper entitled "GTA-based framework for evaluating the feasibility of transition to FMS" pp. 160-187, Journal of Manufacturing Technology Management, Vol. 21, No. 2(2010)
- 3. Paper entitled "A graph-theoretic approach to evaluate the intensity of barriers in the implementation of FMS, pp. 24-52, International Journal of Services and Operations Management, Vol. 7, No. 1(2010)
- 4. Paper entitled "An ISM Approach to Analyze Interaction Between Barriers of Transition to Flexible Manufacturing System, pp. 417-438, International Journal of Manufacturing Technology and Management, Vol. 16, No. 4 (2009)
- 5. Paper entitled "Development of Parallel jaw Robotic Gripper", was presented and subsequently published in the proceedings of International Conference on Emerging & Futuristic System & Technology, pp. 350-354, (ICE-FST'09) LEIT, Tijara, Rajasthan, India.
- 6. Paper entitled "An AHP Approach for the Selection of Advance Manufacturing System: a case study, pp. 471-498, International Journal of Manufacturing Research, Vol. 3,No. 4, (2008)
- 7. Paper entitled"Robotic Hand Dexterity in Finger Manipulation" Conference Proceeding- International Conference on Fascinating Advancement in Mechanical Engineering (FAME2008), 11—13 December, 2008 at Mepco Schlenk Engineering College, Sivakasi., India
 - 8. Paper entitled "An ISM Approach for Modeling the Enablers of Flexible Manufacturing System-A Case Study for India, pp. 6883-6912, International Journal of Production Research, Vol. 46, No. 24 (2008)
 - 9. Paper entitled "A Review of Some Issues and Identification of Some Barriers in the Implementation of FMS", pp.1-40, International Journal of Flexible Manufacturing Systems, Vol. 19, No. 1, (2007).
 - 10. Paper entitled "HFMS: A New Concept in Context of Flexible Manufacturing Systems", Presented and published in proceedings of Global Conference on Flexible System Management in UP, Technical University, Noida, India from November 15-17, 2007, pp. 321-327,.

- 11. Paper entitled "Some dimensions of Flexibility in FMS", Presented and published in proceedings of Global Conference on Flexible System Management in UP Technical University, Noida, India from November 15-17, 2007 pp. 328-334...
- 12. Paper entitled "Paper entitled "Direct and Inverse Kinematic Analysis of Robotic Arm ER-VII" published in Lingaya Journal of Professional Studies, Vol.2, 2008, pp 76-88,.
- 13. Paper entitled "Paper entitled "Computer Integrated Manufacturing of Valve-Pin" published in Lingaya Journal of Professional Studies, Vol.1, 2007, pp 95-106.
- 14. Paper entitled "Grasp Stability of Four Fingered Robotic Gripper by Numerical Optimization" was presented and subsequently published in the proceedings of in International conference on control, Instrumentation & Mechatronics to be held on 28-29 May 2007 at PJ International convention centre, Johar Malaysia.
- 15. Paper entitled" Four fingered Robotic hand- An Animated Simulation" was presented and subsequently published in the proceedings of International conference on Advances in Machine Design & industry Automation, at Department of Mechanical Engineering, College of Engineering Pune-411005, Maharashtra, India, Jan 10-12, 2007.
- 16. Paper entitled "Developing Trend of Multifingered Robotic Hands" was presented and subsequently published in the proceedings of National Seminar on Intelligent Technologies in Mechanical & Automotive Industries Engineering, at Department of Mechanical Engineering, Institute of Technology & Management, Gurgaon, Haryana India, Jan 5-6, 2007.
- 17. Paper entitled "CAE of Hero Honda CBZ Motorbike Component Using CATIA V5-A Reverse Engineering Approach". Was presented and subsequent published in proceedings at National conference on Trends & Advances in Mechanical Engineering (TAME-2006) at Mechanical Engineering Deptt, YMCA Institute of Engineering, Faridabad. (Haryana), India. Dec 9-10, 2006.
- 18. Paper entitled "Reverse Engineering of Pillion Step Holder of Hero Honda CBZ motorbike using CATIA V5"Numerical Optimization For Stable Grasp Using MATLAB" was presented and subsequent published in proceedings at National conference on Recent Developments and Future Trends in Mechanical Engineering(RDFTME-2006) at Mechanical Engineering Deptt, NIT Hamirpur, India. Nov 3-4, 2006.
- 19. Paper entitled "Numerical Optimization for Stable Grasp Using MATLAB" was presented and subsequent published in proceedings at National conference on Recent Advances in computer Aided Engineering, at Department of Mechanical

Engineering, University College of Engineering, Osmania University Hyderabad, India. March 3-4, 2006.

- 20. Paper entitled "Dexterous Grasping by Two Fingered Robotic Gripper" was presented and subsequent published in proceedings at National Conference on Advances in Mechanical engineering (AIME 2006), January 2006, Department of Mechanical engineering, Faculty of Engineering and Technology., Jamia Millia Islamia, New Delhi, India. January-20-21, 2006.
- 21. Paper entitled "Loading and unloading at containers operations at container Terminal and Application of GREEDY ALGORITHM" was presented and subsequent published in proceedings at National Conference on Advances in Mechanical engineering (AIME 2006), January 2006, Department of Mechanical engineering, Faculty of Engineering and Technology., Jamia Millia Islamia, New Delhi, India. January-20-21, 2006.
- 22. Paper entitled "Technologies for containers movement in container terminal" was presented and subsequent published in proceedings at International Conference on Advances in Materials, Product Design and Manufacturing Systems (ICMPM 2005), December 2005, Bannari Amman Institute of Technology Sathyamangalalam, Tamilnadu, India.
- 23. Paper entitled "Some Aspects in Design of Multifinger Robotic Gripper" was presented and subsequently published in the proceedings of National Conference on Emerging Trends in Manufacturing Systems (ETMS-2005), at Department of Mechanical Engineering, S J P M L Institute of Engineering & Technology (JMIT), Radaur (Yamuna Nagar), 15-16 March 2005.
- 24. Paper entitled "Material Handling Equipments-A Review" was presented and subsequently published in the proceedings of National Conference on Recent Trends in Design and Manufacturing Technologies (RTDMT 2005), at Department of Mechanical Engineering, Kumaraguru College of Technology, Coimbatore, 17-18 March 2005.
- 25. Paper entitled "Grasp Frictional Equilibrium Analysis of Multifingered Robotic Hand" was presented and subsequently published in the proceedings of National Conference on Recent Trends in Design and Manufacturing Technologies at Department of Mechanical Engineering, Kumaraguru College of Technology, Coimbatore, 17-18 March 2005.
- 26. Paper entitled "Screw Motion and Mechanics of Robotic Grasping" was presented and subsequently published in the proceedings of International conference on Industrial and Applied Mathematics, at India International Centre, New Delhi December 04-06, 2004.

- 27. Paper entitled "Hands for Humanoid Robot" has been accepted for presentation and publication in the proceedings of National Conference on World Class Manufacturing System-2004 to be held at Deptt. Of Mech. & Prod. Engg, D. B. College of Engineering, Sewagram, Wardha.
- 28. Paper entitled" Some Studies on Grasp stability of Multifingered Robotic Hand" has been accepted for presentation and publication in the proceedings of National conference on Development and challenges in Manufacturing Engineering-2004. Deptt. O f Mech. Engg. MIT Manipal, March 18-20, 2004.
- 29. Paper entitled" Simulation of Multifingered Robotic Hand" was presented and subsequently published in the proceedings of XIIth ISME National Conference IIT Roorkee, Dec 30-31, 2003.
- 30. Paper entitled "Dexterous Rotation of Cube by Multi Fingered Robotic Hand" was presented and subsequently published in the proceedings of National Conference on TIME-2003, KITS Warangal, Aug-2003.
- 31. Paper entitled "Part Programming of Complex Profiles on Computer Numerical Control Machines" was presented and subsequently published in the proceedings of National conference on Advanced Trends in Mechanical Engineering Research and Development MINAC-2002, JNTU College of Engineering, Ananthapur, 21st Dec 2002.
- 32. Paper entitled "Robotic Grasping properties –A Review" was presented and subsequently published in the proceedings of National conference on Recent Trends in CAD/CAM, Deptt. Of Mech. Engg., J.N.T.U. College of Engg. Kakinada, A.P, 30th March 2002.
- 33. Paper entitled" Developing Trends in Computer aided Manufacturing" was presented and subsequently published in the proceedings of National conference on Recent Trends In Manufacturing Technology and Management, Deptt of Production Engg., Adhiyamaan college of Engg. Housur Tamil Nadu, Jan 28—29,2002
- 34. Paper entitled "CIM laboratory a requirement of engineering Colleges. Was presented and subsequently published in the proceedings of IVth International conference on Mech. Engg.-2001, BUET Dhaka, Dec-26-28, 2001.
- 35. Paper entitled "Flexible Manufacturing Systems And Ergonomics: An Overview" was presented and subsequently published in the proceedings of

National conference on Advanced Trends in Mechanical Engineering Research and Development MINAC-2001, JNTU College of Engineering, Ananthapur, Oct, 18, 2001.

- 36. Paper entitled "Kinematic Analysis of Robotic arm ER-VIII" was presented and subsequently published in the proceedings of IPROM-2000 at Priyadarshini College of Engineering & Architecture, Nagpur, January 17-20, 2001.
- 37. Paper entitled "Introduction of CIM in Engineering Colleges: Experimental Hurdles" was presented and subsequently published in the proceedings of National Conference on World Class Manufacturing System-2000 at BEIT Jhansi, August 18-19, 2000.
- 38. Paper entitled "Lethality of Environment –Killing us softly" was presented at the International Conference on Environmental Challenges for the New Millennium, Jamia Millia Islamia, New Delhi, November 25-27, 1999.
- 39. Paper entitled "Modern Manufacturing Technique-OPEN CIM" was presented and subsequently published in the proceedings of Recent Advances in Materials Processing RAMP-2001, Annamalai University, Annamalai Ngr, Tamil Nadu, Sept 7-8, 2001.
- 40. Paper entitled" Generation of part program and profile cutting on CNC Machines" was presented and subsequently published in the proceedings of Indian National Conference on applications of computer in Engineering and communication, College if Engineering Osmanabad, March 24-25, 2001.
- 41. Paper entitled" Robotic Grasping –Some Challenging issues" was presented and subsequently published in the proceedings of National Conference on Advanced Trends in Mech. Engg Research and Development, Deptt. Of Mech. Engg. J.N.T.U College of Engg, Anantapur, A.P.0ct-18, 2001.
- 42. Paper entitled" Robotic Manipulation-An Important Issue" was presented and subsequently published in the proceedings of Institution of Engineers, All India Seminar, Deptt. Of Mech. Engg. REC Rourkela, Orissa, Nov 17-18, 2001.
- 43. Paper entitled "Industrial Robotics & Technical Hurdles: A Perspective" was presented at RIMS-99 and subsequently published in its proceedings, organized by Institution of Engineers at HMT Pinjore, April 24, 1999.

REFEREES

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Dr. S.C. Sharma

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