

Biodata of Dr. Prakasan K, Ph.D.

Principal , PSG College of Technology
Professor, Department of Production Engineering,
Former Head, Department of Production Engineering,
Former Dean (Autonomous Functioning)
PSG College of Technology
Coimbatore-4, Tamil Nadu, India



Date of Birth: 27 May 1964

1. Academic Profile

S. No.	Degree/Examination	Board/University	Year of passing
1	BSc(Mathematics)	University of Calicut, India	1984
2	B.Tech (Aeronautical Engineering)	Anna University Madras Institute of Technology Campus, Madras – 44, India	1988
3	M. Tech(Aircraft Production Engineering)	Indian Institute of Technology, Madras-36, India	1991
4	Ph.D In the area of Metal Matrix Composites - Dept. of Mechanical Engineering	Indian Institute of Science, Bangalore-12, India	1995-1997

2. Awards and Prices Won

1. Anna University Gold medal for First Rank in B.Tech (Aeronautical Engineering)
2. Best All Rounder Trophy for XXIII Batch of management trainees of Hindustan Aeronautics Ltd. for the Basic Management Training Programme at HAL Staff College, 1990
3. Best academic performance at I.I.T Madras for XXIII batch of management trainees of Hindustan Aeronautics Ltd., 1990
4. Fourth rank in BSc (Maths) Calicut University - 1984
5. Outstanding Engineer Award 2018, Mechanical Engineering, The Institution of Engineers (India), Coimbatore Local Center

3. Training Programmes Undergone

3.1 In India

1. Industrial Training in Helicopter Design Bureau of Hindustan Aeronautics Ltd., Bangalore - 17, in the Main Rotor and Tail Rotor groups for 5 weeks (May 1987 - June 1987)

2. Management Trainee Programme of Hindustan Aeronautics Ltd., for the XXIII Batch of Management Trainees and its several phases at HAL Staff College, Bangalore (1988 - 1990)
3. On the job training at Hindustan Aeronautics Ltd., Nasik Division for 3 months (October 1990 - December 1990)
4. The NPIU of TEQIP II sponsored Management Capacity Enhancement Programmes, 19th – 21st, 22nd – 25th September, 2014 at IIM Trichy Center, Chennai

3.2 Abroad

1. The programme on Production Management for India - for Manufacturing Industry, 13th – 26th February, 2008, AOTS, Chubu, Japan
2. Programme for Leadership in University Management, 23rd – 25th September, 2014 as a Temasek Foundation - NUS Senior Fellow

3.3 Countries visited

- (i) First PTC Academic Research Symposium at our Needham Corporate Visitor Center on 14th - 15th April 2011. As the invited speaker, **Boston - Needham - PTC - Academic Forum, USA**
- (ii) NIWEEK 2011, August 2011, **Austin – Texas - VI Yantra - USA**

4. Professional Experience

Sl. No.	Organisation	Designation	Duration	Nature of Job
1	P.S.G College of Technology, Coimbatore, India - 614 004	Professor, Dept. of Production Engg. Head of Department of Production Engg.	01-03-2004 to till date 01-03-2006 to 06-06-2019	Research work of funded projects. Guiding research scholars in addition to above responsibilities and Development of the department
2	P.S.G College of Technology, Coimbatore, India - 614 004	Assistant Professor (Dept. of Mechanical and Production Engg.)	01-02-1998 to 01-03-2004	Making contacts with industries and carry out consultancy work in the department in addition to teaching UG and PG courses, Supervising PhD work
3	P.S.G College of Technology, Coimbatore, India - 614 004	Lecturer (Dept. of Mechanical and Production Engg.)	29-08-1997 to 01-02-1998	Handling of theory and practical classes for UG and PG Courses of the departments, Preparation of the Syllabi, Preparation of Project proposals.

4	Hindustan Aeronautics Ltd., Nasik, Maharashtra, India - 422 221	Deputy Manager (In the same department)	01-10-1994 to 17-01-1995	Administrative responsibilities in addition to the earlier responsibilities
5	Hindustan Aeronautics Ltd., Nasik, Maharashtra, India - 422 221	Engineer (Flight Test Hangar)	15-01-1990 to 01-10-1994	Analysis of Technical Snags, Rectification and Certification, on MIG 21 & MIG 27 Aircraft, Supervising and Man Management

5. Research Projects (executed) as Principal Investigator

The following research projects were proposed and sanctioned by DST-AICTE & DST-FIST, (funding agencies of Government of India). I was the principal investigator for these projects.

Sl. No.	Project Title	Sponsoring Agency	Duration	Amount Sanctioned
1	Investigations on the Preparation of Ceramic Inks for Direct Ceramic Inkjet Printing for the Manufacture of Ceramic Components	Department of Science and Technology, GOI	2002-2004	9.65 Lakhs
2	Micro-Engineering of Ceramics using Direct ceramic inkjet printing	All India Council for Technical Education, GOI	2002-2004	5 lakhs
3	Product Data Modeling and Integrated Product Development Laboratory	Department of Science and Technology - FIST, GOI	2005-2009	20 lakhs
4	Investigations on Direct Ceramic Inkjet Printing of Multilayered Ceramic components using a Dispensing Platform	Department of Science and Technology, GOI	2006-2008	23.88 lakhs
5	Consultancy Clinic on Product Styling and Design	Department of Scientific & Industrial Research, GOI, New Delhi	2006-2008	37.0 lakhs
6	Investigations on metal -ceramic and metal – metal joining by ultrasonic welding for different joint designs	All India Council for Technical Education, GOI, New Delhi	2008-2010	9.2 lakhs
7	Theoretical and experimental studies on flow of molten metal through molds use in foundries	Department of Science and Technology, GOI, New Delhi	2011-2013	17.9 lakhs
8	Mathematical Modeling and Simulation of Electrochemical Machining (ECM) Processes for Machining Thin Sections	University Grants Commission, GOI, New Delhi	2011-2014	8.6 lakhs

9	Smart machines - An Application of Industrial Internet of Things (IoT) in Manufacturing Systems	AICTE, New Delhi	2017-2019	11.0 lakhs
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6. Ph.Ds Guided Successfully (9 completed under Anna University -Chennai)

1. Investigations on the Rheology of Ceramic Inks, Drop Formation and Design of Nozzle for Direct Ceramic Inkjet Printing. Mr.P.K.Rajesh (2006).
2. Studies on Temperature Distribution in Various Joint Designs and Design of Horn for Ultrasonic Welding of Thermoplastics. Mr.K.S.Suresh (2008) - QIP
3. A Product Data Management Framework for the Design and Development of Headlamps for Passenger Cars. Mr.Haris Naduthodi (2009) - QIP
4. Studies on Interoperability and Development of a Framework for Data Exchange between Engineering and Manufacturing Systems for Product Development. Mr.R.S.Kumar (2010)
5. Experimental and Theoretical Investigations on Ultrasonic Metal Welding and Optimisation of Process Parameters to Achieve Quality Welds. Mr.S.Elangovan (2012)
6. Experimental Investigations on Flow through Critical Sections of Moulds using Water Models and Dimensional Analysis for Foundry Applications. Mr.V.Jaiganesh (2014)
7. Experimental and Theoretical Studies on Fuel Sloshing in Automotive Fuel Tanks. Mr.R.Rajamani (2017)
8. Experimental Studies on Strength of Ultrasonically Welded Joints of Copper Wire and Sheet used for Electrical Contacts. Mr.J.Pradeep Kumar (2018)
9. Investigations on the Effect of Tool Geometry on Diametrical Overcut and Current Efficiency in Electrochemical Micromachining of Titanium Sheet. Mr.M.R.Pratheesh Kumar (2019)
10. **On going:** Virtual Reality based Design of Equipment (Device to assist in walking) for the aged that prevents them from falling while executing normal tasks.

Research Scholar: Mr.K.Pradeep, Asst. Professor, Department of Production Engineering

7. Design Registrations

S. No	Name of the Patent	Product	Description	Date of Approval
1.	Certificate of Registration of Design	Brush	Certificate of Registration of Design is obtained for the design of brush (under the class 04-02) design number 208545 from the Controller General of Patents, Designs and Trade Marks, Government of India.	21 st February 2007

S. No	Name of the Patent	Product	Description	Date of Approval
2.	Certificate of Registration of Design	Black Board Eraser	Certificate of Registration of Design is obtained for the design of black board eraser (under the class 19-06) design number 213297 from the Controller General of Patents, Designs and Trade Marks, Government of India.	05 th November 2007
3	Certificate of Registration of Design	Wet grinder	Application Number 2078/CHE/2008 Receipt No. 011827 Dt: 26/08/2008	Granted on 8 th August, 2016

8. Contribution to the institution

8.1 As the Principal Incharge, June 1, 2019 - December 21, 2021 Principal, December 22, 2021- till date

Placement and Training

Special emphasis was given to placement section, functional model introduced with facilities and manpower. Provisions are made for the following with dedicated manpower.

- (i) Profiling of students to know their strengths- carried out during first year
- (ii) General Counselling, career counseling – Through out the period of study
- (iii) Support for Internship, training needed for placement ,
- (iv) Conduct of employability enhancement courses

These are introduced in a structured manner and organized effectively so that placement is improved in terms of quality and quantity. A role “Department placement coordinators” are identified and are guided to coordinate with Dean (Placement and Training). An informative website is developed with vision and

mission for placement section. Organisations can interact with the placement office.

GATE/NET coaching classes for students are also introduced with the coordination of Placement coordinators and GATE coordinator of the college.

Motivating Faculty members to qualify in Competitive examinations(GATE/NET)

Considering the importance of outcome based education and problem solving skills to be imparted to students, faculty members are advised and supported to sharpen their skills by qualifying in GATE/NET examinations. Faculty members who qualify are awarded with a certificate and cash award. Also, this supports placement in PSUs for students as they guide students to qualify in GATE /NET examinations. Teachers conduct special classes for students to qualify in GATE/NET. This is done through Dean , (Placement and Training).

In addition, there are other activities wherein contributions are made so that college progresses as per the vision and mission.

- (a) Administering the activities of the institution towards progress in curricular, co-curricular and extra-curricular activities with the support of the management complying with the regulatory bodies and the Director of Technical Education, Chennai. Coordinated TEQIP III activities with SPIU and presented the details to DOTE.
- (b) Updating the management on the need to expand a few functional domains to attain Uniqueness(Cyber security, stress on Mathematics)
- (c) Persuading faculty members and Heads of Departments to assume path breaking steps to disseminate knowledge to the seekers.
- (d) Attempting to provide a seamless network of communication based on relevant data to all stakeholders for inclusive growth.(Eg. Album of alumni)

- (e) Completed the visit of two NBA teams during the last 9 months. One appeal (MCA) to reconsider the scores is made. Ready for presentation on August 25, 2021 as per NBA guidelines.
- (f) During lockdown faculty members were addressed several times and the relevance of autonomy was explained several times. It has proved effective in improved participation of students during lockdown.
- (g) Prepared a video on foundry(2020) practices so that students can learn without physically travelling during lockdown. It is available on AICTE website for usage by all students of engineering. This is done during lockdown with the support of TEQIP, Management and Teachers.

Empowered more senior faculty members with PhD from various departments to support the activities of the institution.(Associate Dean –Placement & Training, Advisor-Coding Club, NACC coordinators-college level, IPR cell, Institution's Innovation Council)

- (h) Initiated Academic audit as a part of NAAC. Documents submitted, waiting for the online audit.
- (i) Initiated Energy and Environment audit. Audit completed. Report awaited.
- (j) Contacting Alumni for mentoring students and supporting them with experience sharing(Webinars through alumni association)
- (k) Preparation of album that can be accessed by the alumni from any part of the world.

Major projects at college level

F.No.DST/NM-ICPS/MGB /2018, Mission Office, NM-ICPS, Department of Science & Technology, Ministry of Science & Technology, Technology Bhawan, New Delhi-110016

Date: 06/08/2020, Office Memorandum: NM-ICPS–Technology Innovation Hubs (TIHs) and Spokes- Details enclosed.(100 crores total outlay, with IIT PALAKKAD and IIIT Sri City, Chittoor, AP)

8.2 As Dean (Autonomous functioning) from June 1, 2014 –August 15, 2021

- (a) Assisted the head of the institution in preparing the curricula for various programmes offered by the college complying with the academic norms laid down by University Grants Commission (UGC) - New Delhi, Anna University - Chennai and All India Council for Technical Education, (AICTE) - New Delhi as applicable from time to time. Created a team for NIRF activities and guided them.
- (b) Prepared comprehensive reports that are to be submitted to the above agencies for inspection and monitoring of autonomous functioning ensuring the availability of autonomous grant.
- (c) Adoption of choice based credit system as per UGC guidelines synchronized with the other academic constraints.
- (d) Organizes meetings of Governing Council and Academic Council twice in a year as per UGC norms
- (e) Preparation of data for RANKING BY NIRF, THE (Asia) THE (World), a few Magazines
- (f) Preparation of Self study report for accreditation by NAAC (cycle1) and arranging of several meetings in this regard. Completed the visit of NAAC committee meeting in the month of March 2019 and received grade A for five years. Reports are updated and annually uploaded in NAAC website

Carried out the role of Principal In-charge as and when assigned by the then Principal before assuming the role of Principal In-charge. So far 95 assignments are carried out as Principal In-charge before assuming the post of Principal Incharge as full time.

8.3 Contribution to the Department of Production Engineering

- (a) As the Head of the Department, Department of Production Engineering (since 2006), several laboratories for UG and PG programmes are created with the

support of Management and Principal. Created a team of faculty members with a good understanding of Programme Objectives and Programme Outcomes and applied for accreditation. As a result of excellent teamwork, Department is accredited for 5 years (2012-2017)

- (b) Further, department is accredited by NBA with a score of 768/1000 till 2021.
- (c) Guided 72 PG projects and 44 UG projects, Successfully Guided a good number of teachers of the department for their PhD. Now they are guiding PhDs , thus helping the department and the college at several levels of administration.
- (d) Created quality culture by motivating faculty members to participate in NPTEL Courses, GATE examination and ARPIT of UGC.
- (e) A new PG programme on Virtual Prototyping and Digital Manufacturing is started in August 2012. This adds value to the department and the Institution as this course is unique in the country that permits students of varying backgrounds in engineering to pursue their masters that can enrich their undergraduate education fruitfully.
- (f) The traditional machining and automation laboratories are made IOT compatible with the support of M/s MAXBYTE, a start up of an alumnus leading to internships, placements and research capabilities.
- (g) Initiated OPEN LEARNING culture in informal settings and students are provided with opportunities to participate in national level competitions (Robocon). Qualified for second time (for the final after strict screening and tough competitions among established colleges. We are only two years old in the race.
- (h) In-charge for CAD/CAM and Virtual Reality Center: Conducted Training programmes, offered consultancy services to several Industries and earned revenue to make this center sustainable. Details enclosed in Annexure.

- (i) In-charge for Product Styling and Design Center: Conducted Training programmes and offered consultancy services to several Industries. A good number of projects are carried out and several training programmes and workshops are conducted by these centers to sustain the activities.

Trained a few faculty members to assume increased responsibilities so that they can contribute to the institution. The roles empowered by such training are as follows.

1. Associate Dean (Autonomous functioning), Dr.S.Sarvanan Professor, Department of Production Engineering. Now Dr. S Saravanan is elevated as Dean (Autonomous functioning).
2. Dr.M.Senthilkumar, Associate Professor, Head of the Department (Incharge), Department of Production Engineering. Also, Dr.M.Senthilkumar is the Coordinator for Internal Quality Assurance Cell for NAAC compliance.

8.4 Participation at the institution level activities

- (a) Assisted the Principal , PSG College of Technology as and when responsibilities are assigned (by working in various committees)
- (b) Organised college level functions (a) Graduation day and (b) Tech day with the assistance of the faculty members of the department and staff

9. Interaction with Industries

Works closely with

- (a) M/s.PTC (India) Pvt. Ltd. for CAD/PLM activities, conferences and training programmes
- (b) M/s.GE John F. Welch Technology Center, Bangalore for research & academic activities and internships. The interaction resulted in a scholarship for the Departments of Production Engineering and Mechanical Engineering. GE Foundation scholarship still continues.

(c) M/s.Tata Consultancy Services Ltd., Research & Academic Activities and Internships

(d) M/s.Larsen & Toubro: Precision Engineering Division, Coimbatore: Internships for students are arranged every year and experts visit the department to deliver lectures on special topics on precision manufacturing and update the curriculum of BE/ME programmes.

(e) Organised TLS by M/s.Larsen and Toubro Ltd., in the year 2014.

10. Conferences/Seminar organized

S. No	Programme	Venue	Year and month, date
1	One day Seminar	PSG College of Technology	24 August 2002
2	First National Conference on IT Enabled Product Development Strategies	PSG College of Technology	22 - 23 August 2003
3	Second National Conference on IT Enabled Product Development Strategies	PSG College of Technology	10 - 11 December 2004
4	Third National Conference on IT Enabled Product Development Strategies	PSG College of Technology	09 - 10 December 2005
5	Fourth National Conference on IT Enabled Product Development Strategies(proposed)	PSG College of Technology	01 - 02 December 2006
6	Fifth National Conference on IT Enabled Product Development Strategies	PSG College of Technology	28 - 29 December 2007
7	Sixth National Conference on IT Enabled Product Development Strategies	PSG College of Technology	18 December 2009
8	International Conference on Product Lifecycle, Modeling, Simulation and Synthesis - PLMSS2011	PSG College of Technology	05 – 07 December 2011

11. Seminars organized for Industry and academia on Product Development

S. No	Programme	Venue	Year and month, date	No. of Participants
1	Applications of Product Styling CAD/CAM/CAE and Virtual Reality for Productivity Improvement ion SMEs	PSG College of Technology	30 th August 2006	30 from Industry
2	Applications of CAD/CAM CAE and IT in Product Development and Discrete Manufacturing (Two weeks programme for Teachers of Engineering Colleges) Sponsored by AICTE, GOI, New Delhi	PSG College of Technology	06 th November 2005 to 19 th November 2005	21 faculty members from Engineering Colleges in India
3	Product Life Cycle Management, (Two weeks programme for Teachers of Engineering Colleges) Sponsored by AICTE, GOI, New Delhi	PSG College of Technology	27 th May 2007 to 09 th June 2007	25 faculty members from Engineering Colleges in India

12. Contribution to the society , to the parent university and DOTE, throughout my service

- a. Carried out election duty as and when assigned by the authorities. Attended several Training programmes for state assembly and parliament elections.
- b. Worked as the President of the residential area and developed park with the support of CMC. (Sri Dhanalakshmi Nagar Residents' welfare association, keeping it clean with the support of CMC)
- c. Member in Academic Council, Anna University Chennai
- d. Took part in several inspections for affiliation
- e. Prepared videos on technical subjects as and when needed by DOTE under TEQIP for online learning.
- f. Active participation in the Institute level functions like Founders' day and Staff day.

13. List of Publications (International Journals) list with DOI enclosed separately.

International Journals

1. Pratheesh Kumar M R, Prakasan K and Kalaichelvan K, “Experimental Investigation and Multiphysics Simulation on the Influence of Micro Tools with Various End Profiles on Diametrical Overcut of Holes Machined using Electrochemical Micromachining for a Predetermined Optimum Combination of Process Parameters”, Russian Journal of Electrochemistry, Vol. 52, No. 10, pp. 1059–1072, October 2016.
2. Jaiganesh V and Prakasan K, “Hydraulics, Dimensional Analysis and Visualization of Flow through Unpressurized Gating Systems using Water Models”, Engineering Journal, Vol. 20, Issue 1, DOI:10.4186/ej.2016.20.1.165, 29 January 2016.
3. Rajamani R, Guru Vignesh M and Prakasan K, “A Study of Liquid Sloshing in an Automotive Fuel Tank Under Uniform Acceleration”, Engineering Journal, Vol. 20, Issue 1, DOI:10.4186/ej.2016.20.1.71, 29 January 2016.
4. Sajay Surya G, Suresh Kumar J, Madhu M and Prakasan K, “Electromyogram as a Viable Direct Human Input for Human Machine Interface”, International Journal of Automation, Mechatronics and Robotics, Vol. 1, Issue 2, pp.7-11, 25 June 2014
5. Rajamani R, Prakasan K and Sethuram T, “Experimental and Numerical Analysis of Modal Properties for Automotive Fuel Tank”, ARPN Journal of Engineering and Applied Sciences, Vol. 9, pp. 711-718, May 2014. [ISSN 1819-6608]
6. Roopa Rani M, Prakasan K, Rudramoorthy R, “Studies on Thermo-Elastic Heating of Horns used in Ultrasonic Plastic Welding”, Ultrasonics, Volume 55, January 2015, Pages 123–132, 2015 Jan;55:123-32. doi: 10.1016/j.ultras.2014.07.005.
7. Jaiganesh Venkataramani and Prakasan Kalakkath, “Observation and Characterization of Flow in Critical Sections of a Horizontal Pressurized Gating System using Water Models”, China Foundry, Overseas Foundry, Vol.10, No.4, pp. 162-170, July 2013.

8. Elangovan S, Semeer S and Prakasan K, "Temperature and Stress Distribution in Ultrasonic Metal Welding – FEA Based Study", Journal of Materials Processing Technology, Vol. 209, pp. 1143-1150, 2009.
9. Elangovan S, Prakasan K and Jaiganesh V, "Optimization of ultrasonic welding parameters for copper to copper joints using design of experiments", International Journal of Advanced Manufacturing Technology, Vol.51, pp. 163-171, 2010.
10. Elangovan S, Shelton Ponnayya J H and Prakasan K, "Experimental studies on optimization of process parameters and finite element analysis of temperature and stress distribution on joining of Al - Al and Al - Al₂O₃ using ultrasonic welding", International Journal of Advanced Manufacturing Technology, Vol.55, pp. 631-640, 2011.
11. Elangovan S, Anand K and Prakasan K, "Parametric optimization of ultrasonic metal welding using response surface methodology and genetic algorithm", International Journal of Advanced Manufacturing Technology, (Published online DOI: 10.1007/s00170-012-3920-y).
12. Ramshankar Somasundaram, Ranganathan Kanagaraj, and Prakasan Kalakkath, "Dynamic Characteristics of Drop-substrate Interactions in Direct Ceramic Ink-Jet Printing using High Speed Imaging System", Defence Science Journal, Vol. 59, No. 6, pp. 675-682, November 2009.
13. Senthil Kumar R, Mahalakshmi S, Prakasan K, "Conversion of Relational Database to XML Database an Algorithmic Approach", GESTS International Transactions on Computer Science and Engineering, Vol 50, Number 1, November 2008, ISSN 1738-6438 ISBN 89-953729-5-8.
14. Senthil Kumar R, PriyaVaijyanthi R, Prakasan K, "Towards Converting a Production Database Schema to XML Schema", International Journal of Computer Aided Engineering and Technology, Inderscience Publishers, USA, ISSN on line 1757-2657, Volume 1, Number 3/2009, pp. 338-353.

15. Haris N and Prakasan K, "A Multiple View Product Model For Reflector And Lens In Automotive Headlamps With Reconfigurable Tooling For Manufacture", International Journal of Computer Aided Engineering and Technology, International Journal of Computer Aided Engineering and Technology, Vol. 3, No. 2, pp.138-154, 2011.
16. Prakasan Kalakkath, Haris Naduthodi, Phani Ram R, "Knowledge based Design of Headlamp for Passenger Cars", Journal of Manufacturing Engineering, Vol 4, No VII, pp.59-63, 2008.
17. Haris Naduthodi, Prakasan Kalakkath, "Generating Exterior Surfaces for Headlamps for Passenger Cars from Car Body Profiles", International Journal of Computer Aided Engineering and Technology, Vol. 1, No.3, pp.368- 387, 2009.
18. Suresh K S, Roopa Rani M, Prakasan K and Rudramoorthy R, "Modeling of Temperature Distribution in Ultrasonic Welding of Thermoplastics for Various Joint Designs", Journal of Materials Processing Technology, Vol. 186, No. 1-3, pp. 138 – 146, May 2007.
19. Roopa Rani M, Suresh K S, Prakasan K and Rudramoorthy R, "A Statistical Study of Parameters in Ultrasonic Welding of Plastics, Experimental Techniques", (available online from March 2007).
20. Venumadhav Reddy, Rajesh P K, Krishna Prasad P S R, Ponnambalam P and Prakasan K, "Simulation of Droplet Formation, Ejection, Spread and Design of Nozzle for Direct Ceramic Inkjet Printing", Defence Science Journal, Vol. 57 No. 2, March 2007.
21. Prakasan K, Vignesh R and Suganthan R "Development of CAD Models from Sketches: a Case Study for Automotive Applications", Journal of Automobile Engineering, Vol. 221, No. D1, pp. no. 41 – 47, January 2007.
22. Prakasan K, Prasanna Kumar V and Lakkumanan R, "Computer Aided Optical Design of Reflectors in Automotive Headlights", Journal of Automobile Engineering, Vol. 220, No. D4, pp. 415 – 424, April 2006.

23. Ponnambalam P, Ramakrishnan N, Rajesh P K and Prakasan K, "Rheological behavior of Ceramic Inks for Direct Ceramic Inkjet Printing – A Preliminary Study", Defence Science Journal, Vol. 56, No. 2, pp. 279 – 288, April 2006.
24. Krishna Prasad P S R, Venumadhav Reddy A, Rajesh P K, Ponnambalam P and Prakasan K, "Studies on Rheology of Ceramic Inks and Spread of Ink Droplets for Direct Ceramic Ink Jet Printing", Journal of Materials Processing Technology, Volume 176, Issues 1-3, pp. 222-2296, June 2006.
25. Roopa Rani M, Prakasan K and Rudramoorthy R, "Designing Joints for Ultrasonic Welding of Plastics", Welding Journal (AWS), pp. 2 – 6, September 2005.
26. Ramakrishnan N, Ponnambalam P, Rajesh P K and Prakasan K, "Studies on Preparation of Ceramic Inks and Simulation of Drop Formation and Spread in Direct Ceramic Inkjet Printing" Journal of Materials Processing Technology (Elsevier), Vol. 169, pp. 372-381, December 2005.
27. Prakasan K and Vijay S M, "Dynamic Model for Droplet Formation and Spread in Direct Ceramic Inkjet Printing", Defence Science Journal, January 2004, Vol. 54, No.1 pp 85 – 93.
28. Prakasan K and Seshan S, "Microstructure and Properties of Squeeze Cast Cu-Carbon Fibre Metal Matrix Composite", Journal of Materials Science, 34, 5045-5049, 1999.
29. Prakasan K and Seshan S, "Cu-Carbon Fibre Reinforced MMCs, Microstructure and Mechanical Properties", AFPAM, 1997, Singapore.
30. Prakasan K and Seshan S, "Microstructure of Squeeze Cast Copper", Practical Metallography Germany, 9/97, 468-470.
31. Prakasan K and Seshan S, "Electrical Conductivity of Squeeze Cast Copper", Journal of Materials Science Letters, U.K, Vol. 16, 1997, 1588-1589.

32. Prakasan K, Palaniappan S and Seshan S, "Thermal Expansion Characteristics of Cast Copper based Metal Matrix Composites", Composites - Part A Elsevier, U.K, Vol. 28 A, pp. 1019-1022, 1997
 33. Prakasan K and Seshan S, "Cu-based Carbon Fibre Reinforced Metal Matrix Composites - Improved Fibre Distribution", Practical Metallography Germany, 5/97, pp.224-231.
 34. Prakasan K and Seshan S, "Microstructure and Mechanical Properties of Squeeze Cast Copper", Transactions of American foundrymen's Society, 97/117.
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14.References

<p>1.Dr. S. Seshan, Professor Emeritus, Department of Mechanical Engineering Indian Institute of Science, Bangalore-12 email: seshan.sivam@gmail.com</p>	<p>2.Dr. B. Gurumoorthy, Professor Department of Mechanical Engineering Indian Institute of Science, Bangalore-12 email: bgm@mecheng.iisc.ernet.in bgm@cpdm.iisc.ernet.in</p>
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15.Annexures

- 1.List of publications with DOI
- 2.Research Output Metrics
- 3.Copy of patents and design registrations
- 4.Details of Awards received –only a few are enclosed
- 5.Consultancy details

1.List of publications with DOI

S. No	Journal Name	Title with DOI	Indexed	SJR
1	Russian Journal of Electrochemistry	Experimental Investigation and Multiphysics Simulation on the Influence of Micro Tools with Various End Profiles on Diametrical Overcut of Holes Machined using Electrochemical Micromachining for a Predetermined Optimum Combination of Process Parameters https://doi.org/10.1134/S1023193516100104	Scopus	0.29
2	Engineering Journal	Hydraulics, Dimensional Analysis and Visualization of Flow through Unpressurized Gating Systems using Water Models https://doi.org/10.4186/ej.2016.20.1.165	Scopus	0.53
3	Engineering Journal	A Study of Liquid Sloshing in an Automotive Fuel Tank Under Uniform Acceleration https://doi.org/10.4186/ej.2016.20.1.71	Scopus	0.53
4	International Journal of Automation, Mechatronics and Robotics	Electromyogram as a Viable Direct Human Input for Human Machine Interface (10.15224/978-981-07-7965-8-56)	Conference Proceeding	
5	ARPJN Journal of Engineering and Applied Sciences	Experimental and Numerical Analysis of Modal Properties for Automotive Fuel Tank http://www.arpnjournals.com/jeas/research_papers/rp_2014/jeas_0514_1093.pdf	Scopus	0.24
6	Ultrasonics	Studies on Thermo-Elastic Heating of Horns used in Ultrasonic Plastic Welding https://doi.org/10.1016/j.ultras.2014.07.005	Scopus	2.89

7	China Foundry, Overseas Foundry	Observation and Characterization of Flow in Critical Sections of a Horizontal Pressurized Gating System using Water Models (Print Only)	Scopus	0.41
8	Journal of Materials Processing Technology	Temperature and Stress Distribution in Ultrasonic Metal Welding – FEA Based Study 10.1016/j.jmatprotec.2008.03.032	Scopus	1.74
9	International Journal of Advanced Manufacturing Technology	Optimization of ultrasonic welding parameters for copper to copper joints using design of experiments https://doi.org/10.1007/s00170-010-2627-1	Scopus	0.95
10	International Journal of Advanced Manufacturing Technology	Experimental studies on optimization of process parameters and finite element analysis of temperature and stress distribution on joining of Al - Al and Al - Al ₂ O ₃ using ultrasonic welding 10.1007/s00170-010-3059-7	Scopus	0.95
11	International Journal of Advanced Manufacturing Technology	Parametric optimization of ultrasonic metal welding using response surface methodology and genetic algorithm 10.1007/s00170-012-3920-y	Scopus	0.95
12	Defence Science Journal	Dynamic Characteristics of Drop-substrate Interactions in Direct Ceramic Ink-Jet Printing using High Speed Imaging System https://doi.org/10.14429/dsj.59.1575	Scopus	0.2
13	GESTS International Transactions on Computer Science and Engineering	Conversion of Relational Database to XML Database an Algorithmic Approach (Print Only)	Not Indexed	

14	International Journal of Computer Aided Engineering and Technology	Towards Converting a Production Database Schema to XML Schema”, International Journal of Computer Aided Engineering and Technology https://doi.org/10.1504/IJCAET.2009.026978	Scopus	0.15
15	International Journal of Computer Aided Engineering and Technology, International Journal of Computer Aided Engineering and Technology	A Multiple View Product Model For Reflector And Lens In Automotive Headlamps With Reconfigurable Tooling For Manufacture 10.1504/IJCAET.2011.038823	Scopus	0.15
16	Journal of Manufacturing Engineering	Knowledge based Design of Headlamp for Passenger Cars NOT Available	NOT Indexed	
17	International Journal of Computer Aided Engineering and Technology	Generating Exterior Surfaces for Headlamps for Passenger Cars from Car Body Profiles 10.1504/IJCAET.2009.026980	Scopus	0.15
18	Journal of Materials Processing Technology	Modeling of Temperature Distribution in Ultrasonic Welding of Thermoplastics for Various Joint Designs https://doi.org/10.1016/j.jmatprotec.2006.12.028	Scopus	1.74
19	A Statistical Study of Parameters in Ultrasonic Welding of Plastics, Experimental Techniques	A Statistical Study of Parameters in Ultrasonic Welding of Plastics, Experimental Techniques 10.1111/j.1747-1567.2007.00182.x	Scopus	0.33

20	Defence Science Journal	Simulation of Droplet Formation, Ejection, Spread and Design of Nozzle for Direct Ceramic Inkjet Printing https://doi.org/10.14429/dsj.57.1756	Scopus	0.2
21	Journal of Automobile Engineering	Development of CAD Models from Sketches: a Case Study for Automotive Applications https://doi.org/10.1243/09544070JAUTO331	Scopus	0.43
22	Journal of Automobile Engineering	Computer Aided Optical Design of Reflectors in Automotive Headlights https://doi.org/10.1243/09544070JAUTO86	Scopus	0.43
23	Defence Science Journal	Rheological behavior of Ceramic Inks for Direct Ceramic Inkjet Printing – A Preliminary Study https://doi.org/10.14429/dsj.56.1890	Scopus	0.2
24	Journal of Materials Processing Technology	Studies on Rheology of Ceramic Inks and Spread of Ink Droplets for Direct Ceramic Ink Jet Printing https://doi.org/10.1016/j.jmatprotec.2006.04.001	Scopus	1.74
25	Welding Journal (AWS)	Designing Joints for Ultrasonic Welding of Plastics (Not Subscribed)	Scopus	0.27
26	Journal of Materials Processing Technology	Studies on Preparation of Ceramic Inks and Simulation of Drop Formation and Spread in Direct Ceramic Inkjet Printing https://doi.org/10.1016/j.jmatprotec.2005.03.021	Scopus	1.74
27	Defence Science Journal	Dynamic Model for Droplet Formation and Spread in Direct Ceramic Inkjet Printing 10.14429/dsj.54.2025	Scopus	0.2

28	Journal of Materials Science	Microstructure and Properties of Squeeze Cast Cu-Carbon Fibre Metal Matrix Composite DOI:10.1023/A:1004744613190	Scopus	0.81
29	Microstructure and Mechanical Properties	Cu-Carbon Fibre Reinforced MMCs, Microstructure and Mechanical Properties https://doi.org/10.1023/A:1004744613190	WOS	1.08
30	Practical Metallography	Microstructure of Squeeze Cast Copper https://doi.org/10.1515/pm-1997-340905	Scopus	0.16
31	Journal of Materials Science Letters	Electrical Conductivity of Squeeze Cast Copper 10.1023/A:1018520502372	Scopus	0
32	Composites - Part A Elsevier	Thermal Expansion Characteristics of Cast Copper based Metal Matrix Composites 10.1016/S1359-835X(97)00077-8	Scopus	1.88
33	Practical Metallography	Cu-based Carbon Fibre Reinforced Metal Matrix Composites - Improved Fibre Distribution https://doi.org/10.1515/pm-1997-340503	Scopus	0.16
34	Transactions of American foundrymen's Society	Microstructure and Mechanical Properties of Squeeze Cast Copper http://eprints.iisc.ac.in/id/eprint/43949	NOT Available	

2.Copy of patents and design registrations

Patents and design registrations

Patents Sanctioned

ORIGINAL
No. 4705

**GOVERNMENT OF INDIA
THE PATENT OFFICE
CERTIFICATE OF REGISTRATION OF DESIGN**

Design No.	208545
Date	21 st FEB. 2007
Reciprocity date*	
Country	

Certified that the Design of which a copy is annexed hereto has been registered as of the number and date given above in class 04.02 in respect of the application of such design to "BHELISH"

in the name of
**DEPARTMENT OF PRODUCTION ENGINEERING, PSG COLLEGE OF TECHNOLOGY,
PEELAMEDU, COIMBATORE, TAMILNADU, INDIA, WHOSE PRINCIPAL IS DR. R.
RUDRAMOORTHY OF THE ABOVE ADDRESS.**

in pursuance of and subject to the provisions of the Designs Act, 2000 and the Design Rules, 2001.


Controller General of Patents, Designs and Trade Marks

*The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

**DEPARTMENT OF PRODUCTION ENGINEERING,
PSG COLLEGE OF TECHNOLOGY,
PEELAMEDU, COIMBATORE, TAMILNADU, INDIA.**

Date of issue: 06/09/2006

ORIGINAL
No. 11653

**GOVERNMENT OF INDIA
THE PATENT OFFICE
CERTIFICATE OF REGISTRATION OF DESIGN**

Design No.	215397
Date	5 th NOV. 2007
Reciprocity date*	
Country	

Certified that the Design of which a copy is annexed hereto has been registered as of the number and date given above in class 19.00 in respect of the application of such design to "BLACK BOARD GRABER"

in the name of
**DEPARTMENT OF PRODUCTION ENGINEERING, PSG COLLEGE OF TECHNOLOGY,
PEELAMEDU, COIMBATORE, TAMILNADU, INDIA, WHOSE PRINCIPAL IS DR. R.
RUDRAMOORTHY OF THE ABOVE ADDRESS.**

in pursuance of and subject to the provisions of the Designs Act, 2000 and the Design Rules, 2001.


Controller General of Patents, Designs and Trade Marks

*The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

**DEPARTMENT OF PRODUCTION ENGINEERING,
PSG COLLEGE OF TECHNOLOGY,
PEELAMEDU, COIMBATORE, TAMILNADU, INDIA.**


SI. No. 044/021493


**भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE
पेटेंट प्रमाणपत्र
Patent Certificate
(Rule 74 of Patents Rules)**

**INTELLECTUAL
PROPERTY INDIA
भारत में पेटेंट प्रदान करने वाला
संस्थान**

Patent Number	272556
Application Number	2074/C-1/2008
Date of Filing	26/08/2006
Patentee	PSG COLLEGE OF TECHNOLOGY

It is hereby certified that a patent has been granted to the patentee for an invention entitled A WET GRINDER TO IMPROVE PERFORMANCE AND EFFICIENCY as disclosed in the above mentioned application for the term of 20 years from the 26 day of AUGUST 2008, in accordance with the provisions of the Patent Act 1970.


Controller of Patents


**Controller General of Patents,
Designs & Trademarks**

Date of Grant: 06/09/2006

Note: The fees for renewal of this patent, if it is to be maintained, will fall due on 26 day of AUGUST 2010 and on the same day in every year thereafter.

3. IE AWARD-OUTSTANDING ENGINEER



PSG College of Technology, Coimbatore
CAD/CAM Centre and Virtual Reality Centre

**Revenue generated through Courses, Training programmes, Workshops and
consultancy activities**

S. No.	Activity	Revenue Generated in Rs.	Remarks
1.	Workshops	1,79,450	From the year 2006 to till date
2.	Courses and Training Programmes	1,14,41,825	From the year 2004 to till date
3.	PSG-DSIR Consultancy	34,382	From the year 2007 to 2010
4.	CAD/CAM Centre Consultancy	5,58,874	From the year 2004 to till date
Grand Total		Rs. 1,22,14,531/-	