



Brief Career Profile of

Dr. K. GOPALAKRISHNAN

Dean (Research & Development)

New Horizon College of Engineering

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Chairman, R&D Committee & Board of Examinations, The Institution of Engineers (India)-IEI
Nominated as Jury Board Member of Industrial Design Award, GID, INNOPROM, Russian Federation, Russia
Member of Co-ordination Committee for Safety and Environment of Bureau of Indian Standards (BIS)
Member of Board of Apprenticeship Training (Southern Region), MHRD, Government of India
Member of Jury Board, Industry Excellence Award, Institution of Engineers (India)
Convener and Special Officer, Special Task Force (*Formation of IEI University*)
Member, Board of Governors, National Design and Research Forum
Member, Board of Management and Governing Council, Engineering Staff College of India
Member, Education, Examinations and Accreditation Committee, IEI
Adviser of Paragon Info Systems UK Ltd, England
Member, Board of Studies, IEI

Ref: <http://newhorizonindia.edu/nhengineering/researchnhce/>

Dr. K. Gopalakrishnan, BE (Mechanical), ME (Industrial), MBA, FIE, PhD, is the Chartered Engineer and Fellow Member elected to National Council of The Institution of Engineers (India)-IEI since 2008-12 & 2012-16. He is the Chairman of Research and Development Committee of IEI and also the Chairman of Marine Engineering Division Board of IEI. He was the Chairman of The Institution of Engineers (India), Karnataka State Centre (2010-12). He is the Member of Task Force and Special Officer of the formation of IEI University. He is a Member of Co-ordination Committee for Safety and Environment of Bureau of Indian Standards (BIS). He is the Member of Board of Apprenticeship Training (Southern Region), MHRD, Government of India. He received his Bachelor and Masters Degree in Mechanical Engineering and Industrial Engineering respectively from Thiagarajar College of Engineering, Madurai and PhD from Anna University, Chennai. He is also the Adviser of Paragon Info Systems UK Ltd, England. He is the Founder Managing Partner of 7D+ Fun Corner (*India's First 7D+ Video Simulator Ride got the ISO 9001:2008 Certification*) and 7DPlus Technology Network Company. He has designed, developed and fabricated the World's First and largest 3D Screen (16'6") Video Simulator Ride having 20 Seats built on 35' Truck Chassis with Expandable Auditorium on Wheels, for which he has received his First International Patent from Russia. He has filed 7 International Patents at Russian Federation Patent Office (Rospatent), Russia, 2 International Patents at USA and 9 at Myanmar to his credit.

His current interdisciplinary research interests and field of practice covers Under Water Vehicles, Marine Corrosion & Bio-fouling, Ocean Observation System, Research Vessel Management, Marine Resources, Marine Safety & Environment, Design and Development of Expandable Auditorium On Wheels, Motion

Simulators, Micro Air Vehicles (MICAVs), Intelligent Imaging Systems, Academic Innovations & Institutional Building Process and Total Quality Management (TQM).

He is having 33+ years of experience in Industry, Consultancy, Teaching, Training and Research. He has published number of Research papers and won various Awards/Honors including Technology Excellence Award during Indian Technology Congress and Engineering Design and Analysis Forum Award for Innovative Design besides guided 7 Ph.D Scholars. He was nominated by the International Biographical Centre, Cambridge, England as **TOP 100 ENGINEERS 2013**. He is the President of Indian Institute of Safety and Environment (IISE). He served as Sponsored Research Coordinator and the Member of Board of Research, Anna University Coimbatore, and also the Academic Council & the Board of Studies on Research of Dr. MGR University, Chennai and Karpagam University, Coimbatore. He was the Mentor and Chief Scientist at Global Institute of Stereovision and Research, Chennai.

As an Academician and Researcher, he had the opportunity to work closely with many Vice-Chancellors of Technical Universities including Anna University and Visvesvaraya Technical University, Advisors (Technical), Ministry of Human Resource and Development, Government of India and contributed to the development of various Academic Innovations/Research Process Models, Teaching-Learning Process Models, Learning Pedagogy and Governance & Management Process Models for Institutions for Higher Learning/Universities. He facilitated and played proactive roles for better Institute-Industry-Interaction and Sponsored/Funded Research initiatives in Universities/Engineering Colleges. He has done extensive research on various Quality Management Systems, TQM and Accreditation Processes such as NBA, NAAC, ABET, Deming Award, ISO 9000 Certification etc and found their commonalities and developed Synergic Quality Model through the Amalgamation of Quality Models, as a Gateway to Achieve Excellence in Engineering Education and for enhance the performance of Academic Institutions/Universities.

He was the Co-investigator of the proposal for National Research Initiative in Micro Air Vehicles (MICAVs) under the auspices of Defence Research & Development Organisation (DRDO)/ Aeronautical Research & Development Board (AR&DB)/ Department of Science and Technology (DST). He has proposed/executed/coordinated many Sponsored Research Projects to the tune of nearly Rs. 18 Crores.

He is regularly publishing research/technical papers in peer reviewed International/National Journals & Conferences. He was the Organising Secretary of International Conference series "TEAM TECH 2004, 2006, 2007 & 2008" conducted at J.N. Tata Auditorium, Indian Institute of Science (IISc), Bangalore. He was also an Editor of the proceedings of these conferences besides the member of Editorial Board of National Design & Research Forum (NDRF) and published many Monographs and White Papers.

His professional visits to many countries including Spain, Portugal, Russia, China, Hong Kong, France, Germany, Switzerland, Singapore, Malaysia, Thailand and Sri Lanka resulted in better collaborations.

He was nominated as a Member, Board of Governors & National Working Group Member of NDRF of the IEI and also nominated as the Member, Board of Management and Governing Council of Engineering Staff College of India, Hyderabad.

He is the Editor-in-Chief of "Engineering Design" – A Quarterly Journal published by NDRF and he was the Editor-in-Chief of "Manufacturing Technology and Management" – A Quarterly Journal of Indian Institution of Production Engineers (IIPE). He is also the Publisher of "World Safety and Environment" – A Quarterly Journal of IISE.

He is also a Fellow/Member of nearly 20 Professional Institutions/ Societies including the Fellow of Institute of Marine Engineers (India), Indian Institution of Production Engineers (IIPE), Rapid Prototyping Society of India (RPSI), Engineering Design & Analysis Forum (EDAF), Biosensor Society of India (BSI), Birds Strike Research Group of India (BSRGI) and National Institution for Quality & Reliability (NIQR) etc. **He was the member of the Official Academic Delegation visited Russia along with President of India during May 2015.**

An official delegation including **The Institution of Engineers (India)** President has accompanied the Hon'ble President of India **Shri Pranab Mukherjee** during the state visit to Russia, from 07 - 11 May 2015 attended the 70th Victory Day Celebrations at Moscow to mark the **70th Anniversary of the Victory in Great Patriotic War (World War II)**



Academic Delegation Visited Russia with Hon'ble President of India Shri. Pranab Mukherjee

L to R Sitting: **Shri. Manoj Sinha**, Minister of State, Railways, Hon'ble President of India **Shri. Pranab Mukherjee** and **Shri. P. S. Raghavan**, Ambassador of India to the Russian Federation

L to R Standing: Prof. Bimal K. Roy, Director, Indian Statistical Institute, **Dr. K. Gopalakrishnan**, *Chairman, R&D-IEI*, Mr. A. Basa, Immediate Past President, IEI, Mr. S. S. Rathore, Past President, IEI, Prof. R. K. Shevgaonkar, Director, IIT Delhi, Dr. L. V. Muralikrishna Reddy, President, IEI, Mr. Satyanarayan Mohanty, MHRD Secretary, Prof. Dinesh Singh, Vice Chancellor, University of Delhi, Dr. Jayant B. Udgaonkar, National Centre for Biological Sciences, Prof. Devang Khakhar, Director, IIT Bombay and Prof. Bhaskar Ramamurthi, Director, IIT Madras (*not seen*)

World's First and Largest 3D Screen (16'6") Video Simulator Ride having 20 Seats Built on 35' Truck Chassis with Expandable Auditorium On Wheels: India's First Simulator Ride ON WHEELS Built on Multi-purpose Expandable Auditorium

Designed and Developed by Dr. K. GOPALAKRISHNAN

Russian Federation (Rospatent) International Patent No. 152801



NDRF-IEI IPR Cell: The First International Patent from Russian Federation (Rospatent) has been presented to **Dr. K. Gopalakrishnan, Dean (R&D), NHCE** for his "World's First Expandable Mobile Auditorium On Wheels with 7D Simulator Built on 35' Chassis having Largest 3D Screen (16') and 20 Seats"

Biographical Sketch of Dr. K. Gopalakrishnan

Name : Dr. K. GOPALAKRISHNAN **Date of Birth:** 10.05.1964 **Gender:** Male

Qualification: Ph.D. (Anna University), MBA (Marketing), ME (Industrial), BE (Mechanical - Thiagarajar College of Engineering, Madurai), DME (TamilNadu Polytechnic, Madurai)

Name of the Institutions where Studied / Worked as Research Scholar in India

Sl.No.	Degree	Specialization	Year	Institution/University
1	Ph.D.	Mechanical Engineering	2002	Anna University, Chennai - 600 025
2	M.E	Industrial Engineering	1993	Thiagarajar College of Engineering, Madurai - 625 015. Madurai Kamaraj University, Madurai.
3	B.E	Mechanical Engineering	1987	
4	M.B.A	Marketing	2007	Periyar University, Salem - 636 011.
5	D.M.E	Mechanical Engineering	1982	TamilNadu Polytechnic, Madurai-625011

Address : Dean (R&D)
New Horizon College of Engineering
Ring Road, Near Marathahalli, Bangalore-560 103.

Present Position :

- Member - Board of Governors, National Design and Research Forum
- Chairman, R&D Committee and Board of Examinations, The Institution of Engineers (India)
- Dean (Project Management) & Professor, Foundation for Advanced Research and Education, Bangalore
- Member of Co-ordination Committee for Safety and Environment of Bureau of Indian Standards (BIS)
- Member of Board of Apprenticeship Training (Southern Region), MHRD, Government of India
- President, Indian Institute of Safety and Environment
- Member, Board of Management and Governing Council, Engineering Staff College of India
- Editor-in-Chief, *Manufacturing Technology and Management*, Quarterly Journal of Indian Institution of Production Engineers.
- Editor-in-Chief, *Engineering Design*, Quarterly Journal of National Design and Research Forum.
- Publisher, *World Safety and Environment*, Quarterly Journal of Indian Institute of Safety and Environment.
- Member - Academic Council/Board of Studies on Research, Karpagam University, Coimbatore.

Professional Institutions: Fellow/ Life / Member of Many Professional Institutions – 20

Experience : 33 years + (Teaching & Research, Industrial Consultancy & Training)

PATENTS AND PUBLICATIONS

- International Patents (Russia/USA/Myanmar) - 7+2+9; Granted 2
- Patents Published in Indian Patent Journal - 6 Patents
- Patents Filed as Dean (R&D), NHCE - 83 Patents
- International Journal/Conference - 27
- National Journal/Conference - 26
- Articles/Booklets - 15
- Books/Course Materials on Safety Engineering - 3

Countries Visited : Spain, Portugal, Russia, Germany, France, Switzerland, Singapore, Thailand, China, Hong Kong, Malaysia & Sri Lanka

International Patents:

- World's First and Largest 3D Screen (16'6") Video Simulator Ride having 20 Seats Built on 35' Truck Chassis with Expandable Auditorium On Wheels.
- India's First Simulator Ride ON WHEELS Built on Multi-purpose Expandable Auditorium.
- International Patent has been filled at Russian Federation under Utility Model Application No.2014115371; Patent No. 152801.
- International Patent "Compartmentalized air inflated seat" has been filled at United States Patent and Trademark Office, Foreign Filing License Granted on 09/16/2015, number of Priority Application is US 62/211,828, Confirmation No. 6846
- International Patent "Dump but Smarter Phone" has been filled at United States Patent and Trademark Office, Foreign Filing License Granted on 09/24/2015, number of Priority Application is US 62/216,380, Confirmation No. 6002
- Smart Materials used inside Mobile Auditorium in walls, on roof and on floor
Indian Application Number/NoC to filling at Myanmar: 2285/DEL/2015 *Patent Pending*
- Pulse rate controlled helmet
Indian Application Number/NoC to filling at Myanmar: 2288/DEL/2015 *Patent Pending*
- Inflation of Compartmentalized Seat
Indian Application Number/NoC to filling at Myanmar: 2283/DEL/2015 *Patent Pending*
- Tilting Floor in Bus
Indian Application Number/NoC to filling at Myanmar: 2286/DEL/2015 *Patent Pending*
- Auditorium on trailer
Indian Application Number/NoC to filling at Myanmar: 2289/DEL/2015 *Patent Pending*
- Windows of bus transmitting radio signals for cell phones inside
Indian Application Number/NoC to filling at Myanmar: 2287/DEL/2015 *Patent Pending*

Patents Published in "Official Journal of the Patent Office, Issue No. 05/2017, Date: 03/02/2017": 6
http://www.ipindia.nic.in/writereaddata/Portal/IPOJournal/1_438_1/Part1.pdf

Patents Licensed/Commercialized: 2 (Earnings/Royalty from Patents: Rs.10,25,000/- as on 04 Oct'17)

SPONSORED RESEARCH PROJECTS

Major Research Projects as PI / Co-PI / Project Coordinator: (Completed / On-going/Initiated)

- Co-Investigator of National Research Initiative in Micro Air Vehicles (Rs. 89 Crores)-AR&DB/DRDO/DST (*Base Proposal which lead to the formation of NP-MICAV*)
- Design & Development of Autonomous Micro Ornithopter (Rs. 9.85 Lakhs)-AR&DB
- Design and Development of Micro Air Vehicle (MICAV) System with Mini Ground Vehicle (MGV) (Rs. 19.35 Lakhs)-SIGMA Project, AR&DB
- Design & Development of Low Weight Radio Modem for MICAV with Scalable Micro Machined Tapered Loop Antenna (Rs. 31.032 Lakhs) -SIGMA Project, AR&DB
- Development of Kaveri and KMGT Mock-up Engine Models through Rapid Prototyping and Rapid Manufacturing (Rs. 45.00 Lakhs)
- Development of Rapid Castings for Kaveri and KMGT Engine Components (Rs. 40.00 Lakhs)
- Design & Development of an Autonomous VTOL MICAV with Launcher (Rs. 19.13 Lakhs)
- Studies on Nozzle Guide Vane Temperature Measurements through Thin Film Thermocouples (Rs. 17.818 Lakhs)- AR&DB
- Design, Fabrication & Testing of IR LED, CCD Sensors for Micro Air Vehicle (Rs. 36.306 Lakhs)
- Design & Development of an Autonomous 24" Flapping Wing MICAV Test Bed (Rs.41.97 Lakhs)-NP-MICAV- AR&DB/DRDO/DST
- Design, Fabrication and Development of an Enhanced Micro Air Vehicle Integrated with MEMS Based Sensing (Rs.47.15 Lakhs)- NP-MICAV-AR&DB/DRDO/DST
- Experimental Research in Day/IR Surveillance Using Mini Air Vehicle (Rs.49.60 Lakhs)-CARS Project-DRDL

Major Events:

- Participated in the First National Flying Competition on Micro Air Vehicles (MICAV 2007) held at Agra during 23 - 27 October 2007. Coordinated by SIGMA of AR&DB.
- Team Member of Drone Aerospace Systems Pvt. Ltd., India, which participated in the First US-ASIAN Demonstration and Assessment of Micro-Aerial & Unmanned Ground Vehicle Technology (MAV08), supported by USA-Navy and Air Force held at Agra during 10-15 March 2008.
- Organised many International / National Events in different fields, including TEAM TECH 2004, 2006, 2007 & 2008.
- More than a decade regularly participates in many Trade Fairs/ Exhibitions. Organising/ conducting regularly Study Circles/Seminars since 1987 on various topics/issues of importance.
- Conducted Workshops on "Opportunities in Sponsored Research for Academic Institutes" at many Technical Universities and Engineering Colleges in India since 2004.

Achievements & Awards of Dr. K. GOPALAKRISHNAN

Dr. K. Gopalakrishnan, Professor, Mechanical Engineering Department, NHCE
Dean (Research & Development)

New Horizon College of Engineering

Project Work: *BE*-Best Project; *ME*-Best Thesis; *PhD*: Highly Commended Thesis

1. Member, Board of Governors, National Design and Research Forum
2. Member, Board of Governors, Safety and Quality Forum
3. Member, Education, Examinations and Accreditation Committee, IEI
4. Chartered Engineer and Fellow Member elected to National Council of The Institution of Engineers (India)-IEI since 2008-12 & 2012-16.
5. Chairman of Research and Development Committee
6. Chairman of Marine Engineering Division Board
7. Chairman of The Institution of Engineers (India), Karnataka State Centre (2010-12)
8. Member of Task Force and Special Officer of the formation of IEI University
9. Member of Co-ordination Committee for Safety and Environment of Bureau of Indian Standards (BIS)
10. Member of Board of Apprenticeship Training (Southern Region), MHRD, Government of India
11. Adviser of Paragon Info Systems UK Ltd, England
12. Founder Managing Partner of 7D+ Fun Corner (India's First 7D+ Video Simulator Ride got the ISO 9001:2008 Certification) and 7DPlus Technology Network Company
13. Designed, Developed and Fabricated the World's First and largest 3D Screen (16'6") Video Simulator Ride having 20 Seats built on 35' Truck Chassis with Expandable Auditorium on Wheels, for which he has received his First International Patent from Russia
14. Filed 7 International Patents at Russian Federation Patent Office (Rospatent), Russia, 2 International Patents at USA and 9 at Myanmar
15. Published 52 of Research Papers in Reputed Journals/Conference Proceedings
16. Won various Awards/Honors including Technology Excellence Award during Indian Technology Congress and Engineering Design and Analysis Forum Award for Innovative Design
17. Successfully Guided 7 Ph.D Scholars
18. Nominated by the International Biographical Centre, Cambridge, England as TOP 100 ENGINEERS 2013
19. President of Indian Institute of Safety and Environment (IISE)
20. Sponsored Research Coordinator and the Member of Board of Research, Anna University Coimbatore
21. Academic Council Member & Member of the Board of Studies on Research of Dr. MGR University, Chennai and Karpagam University, Coimbatore
22. Mentor and Chief Scientist at Global Institute of Stereovision and Research, Chennai
23. Contributed to the development of various Academic Innovations/Research Process Models, Teaching-Learning Process Models, Learning Pedagogy and Governance & Management Process Models for Institutions for Higher Learning/Universities

24. Done extensive research on various Quality Management Systems, TQM and Accreditation Processes such as NBA, NAAC, ABET, Deming Award, ISO 9000 Certification etc and found their commonalities and developed Synergic Quality Model through the Amalgamation of Quality Models, as a Gateway to Achieve Excellence in Engineering Education and for enhance the performance of Academic Institutions/Universities
25. Co-investigator of the proposal for National Research Initiative in Micro Air Vehicles (MICA Vs) under the auspices of Defence Research & Development Organisation (DRDO)/ Aeronautical Research & Development Board (AR&DB)/ Department of Science and Technology (DST)
26. Proposed/Executed/Coordinated many Sponsored Research Projects to the tune of nearly Rs. 18 Crores.
27. Organizing Secretary of International Conference series “TEAM TECH 2004, 2006, 2007 & 2008” conducted at J.N. Tata Auditorium, Indian Institute of Science (IISc), Bangalore and Editor of the proceedings of these conferences
28. Member of Editorial Board of National Design & Research Forum (NDRF) and published many Monographs and White Papers
29. Professional visits to many countries including Spain, Portugal, Russia, China, Hong Kong, France, Germany, Switzerland, Singapore, Malaysia, Thailand and Sri Lanka resulted in better collaborations
30. Member, Board of Governors & National Working Group Member of NDRF
31. Member, Board of Management and Governing Council of Engineering Staff College of India, Hyderabad
32. Editor-in-Chief of “Engineering Design” – A Quarterly Journal published by NDRF
33. Editor-in-Chief of “Manufacturing Technology and Management” – A Quarterly Journal of Indian Institution of Production Engineers (IIPE)
34. Publisher of “World Safety and Environment” – A Quarterly Journal of IISE
35. Fellow of Institute of Marine Engineers (India), Indian Institution of Production Engineers (IIPE), Rapid Prototyping Society of India (RPSI), Engineering Design & Analysis Forum (EDAF), Biosensor Society of India (BSI), Birds Strike Research Group of India (BSRGI) and National Institution for Quality & Reliability (NIQR) etc
36. Member of the Official Academic Delegation visited Russia along with President of India during May 2015 along with 4 IITs Director who have Visited Russia
37. Invited as Member of Jury Board of Industrial Design Award by INNOPROM-Russia, International Trade Fair with Japan as Partner Country held at Ekaterinburg, Russia July 2017.
38. Jury Board Member of “Industry Excellence Award” of Institution of Engineers (India)