Dr. T. KRISHNAIAH

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SENIOR ACADEMICIAN

Seeking assignments in **Teaching** with an organization of high repute in the Education sector

PROFILE SNAPSHOT

A dynamic professional with 32 years of qualitative experience in academics and academic administration

- Sound knowledge in areas of instruction and enthusiasm for chosen academic field
- Expertise in Emerging areas of Computational Fluid Dynamics (CFD), Renewable Energy Technologies and Artificial Neural Networks (ANN)
- Well motivated with good teaching abilities, enthusiasm and passion towards teaching profession and engaging with students
- Patience, understanding and willingness to help students
- Experience and keenness towards Institution building activities
- Holding a Doctorate degree in Mechanical Engineering from National Institute of Technology, Warangal with total teaching experience of 32 years
- An aptitude for research and skills for publishing research and analysis having published papers in Scopus Indexed and SCI Journals
- Experience and knowledge in NBA/NAAC/NIRF and other related documentation works.
- Sound knowledge in NAAC accreditation frame work such as IIQA Process, all the seven criteria basis of assessment and other NAAC parameters, Preparing Self Study Report (SSR), insights of DVV Process, Student Satisfaction Survey Process and Procedures of Peer Team Visit
- Strong analytical, observational and problem-solving skills
- Excellent communication skills, both for lecturing and communicating with colleagues
- Able to effectively evaluate students progress
- Excellent organizational and time management skills
- Good record of attending conferences and academic events
- A dynamic and passionate leader involved in Teaching, Research and Administration
- Experience & skills in developing curriculum to accommodate different learning styles & maximizing students comprehension
- Hands on experience & skills in developing curriculum to accommodate different learning styles & maximizing students comprehension
- Deft at organizing teacher's orientation workshops, special events and campaigns, educational tours and exhibitions etc.
- Possess stupendous skills for mentoring, guiding and controlling teachers/ students
- Experience in liaising with institutions and corporate for promoting research
- Adept at facilitating/ coaching students by using interactive discussions and "hands-on" approaches to mentor them for achievements in academic, co-curricular & extracurricular activities
- An out-of-the-box thinker with experience in the design and implementation of innovative practices in education

- Deft in keeping abreast of new knowledge & skills and disseminating the same through books, publications, seminars, etc.
- Motivating and encouraging faculty to participate in faculty improvement programs, research and conferences
- Maintaining productive learning environment by stating classroom rules, holding students accountable for their actions, implementing consistent and fair consequences
- A keen planner & implementer with proficiency in handling operational policies/norms, faculty appraisal/training and upholding of the institution's motto
- A catalytic learner and leader, always seeking to learn and understand to apply the new learning and insights in simple, effective ways to benefit the organization and stake holders

SKILL SET

Managerial Skills

- Vision
- Leadership

- Strategic Partnerships
- DecisionMaking

Functional Skills

- Teaching
- Research and Development
- Administration
- Career Counseling

- Discipline & Coordination
- Faculty Training
- Networking and Support
- HandlingComplaints

ACADEMIC QUALIFICATIONS

Ph.D. (Mechanical Engineering) -- National Institute of Technology, Warangal, 2011

M.E. (Heat Power) -- Govt. Engineering College, Jabalpur, 1995 with 82%

B.Tech. (Mechanical Engineering) -- V.R. Sidhartha Engineering College, Vijayawada, 1988 with 72%

ORGANIZATIONAL EXPERIENCE

- 1. October 2018 to till date with KMM Institute of Technology and Science, Tirupathi Andhra Pradesh as Principal and Professor
- 2 September 2017 to September 2018 with Avanthi Institute of Engineering and Technology, Visakhapatnam, Andhra Pradesh as Principal and Professor
- 3. February 2016 to August 2017 with Malineni Lakshmaiah Engineering College, Singarayakonda, Andhra Pradesh as Principal and Professor
- 4. Sept'2014 to Jan 2016 with ABR College of Engineering & Technology Kanigiri, Andhra Pradesh as Principal and Professor
- 5. Feb'2011 to August 2014 with Jagan's College of Engineering & Technology Nellore, Andhra Pradesh as Principal and Professor
- 6. Guru Nanak Dev Engineering College, Bidar Karnataka

Duration of Service: 21 Years 10 Months

Growth Path:

June'2010 to Jan'2011: Professor and Head of Mechanical Engineering

Department

May'1999 to May'2010: Assistant Professor and Head of Mechanical Engineering

Department

Apr'1989 to May'1999: Lecturer

TRAITS AS PROFESSOR

- Have strong leadership abilities.
- Can cope up with the vision of the Institution.
- Compatible with the management
- Able to encourage the teachers/ Students to give their best
- Have the ability to prevent and solve student problems dynamically.
- Have innovative thinking in teaching, research and administration.
- Able to handle ISO/NBA/NAAC/QIP/NIRF related activities. .
- Human in approach.
- Daring, Intelligent and Analytical with strong memory

Key Result Areas:

- Performing a variety of administrative duties and implementing operational plans to ensure smooth running of organization; accountable for planning and implementing staff development activities
- Spearheading professional development and implementation of educational programs
- Reviewing the pre-set educational standards, classroom instructional programs, establishing academic and other performance objectives
- Developing laboratories and learning resources materials for students
- Conducting research in specialization and publishing findings in scholarly journals or conference proceedings
- Serving faculty committees, dealt with matters like curriculum planning and degree requirements
- Developing educational quality management systems while establishing policies and procedures to carry them out for quality audit/accreditation
- Handling examination activities of university by evaluating and assessing the students
- Counseling and guiding the students to achieve ethical, moral and overall character development
- Instructing the students as per curriculum there by recognizing, respecting & nurturing their creative potential
- Responding to queries in a spontaneous manner and also counseling & grooming the students for their ethical, moral and overall character development
- Coordinating & assisting in proposal writing to develop additional funding and development of curriculum

ADMINISTRATIVE EXPERIENCE

Institute Level: Principal, Incharge - Transport Section; Incharge - Central Workshop; Editorial MemberCollege Magazine; Member-Industrial Collaboration Advisory Group; Chairman- NSS Unit; Secretary-ISTE Chapter

Department Level: Head of the Department, Academic Incharge, Examinations Incharge, P.G. Course Coordinator, Time Table Coordinator, N.B.A.(National Board of Accreditation) Coordinator, Lab Incharge -HT Laboratory; Coordinator - Project evaluation committee, Seminar Coordinator

ACADEMIC AND ADMINISTRATIVE ACHEIVEMENTS

- NAAC Accreditation: Got awarded NAAC Accreditation at Avanthi Institute of Engineering and Technology, Visakhapatnam as Principal by identifying the requirements, team of faculty members, Preparing SSR, DVV report and Peer Team Visit and got awarded NAAC Accreditation
- **NBA Accreditation:** Worked as NBA Coordinator for accrediting Mechanical Engineering Programme at GNDEC, Bidar by National Board of Accreditation for a period of 3 years during 2007- 2010 and 2010 2013 and familiar with outcome-based education
- Academic Coordinator: Worked as Academic Coordinator for 15 years (1995-2010) at GNDEC, Bidar during that period optimal subject allotment for faculty, preparation of academic calendar and Time Table preparation are carried out.
- **Academic Audit**: Implemented Academic Audit for quality assurance and enhancing the quality of academic activities in the Institution through a systematic method of reviewing the quality of academic process.
- **Employability Skills Training**: Imparting Training for the necessary skill set to the students in core engineering skills in specialized technical areas and soft skills through in-house trainers and outsourced experts from Industry through rigorous, innovative and quality training methodologies
- **Industrial Practice**: Organizing Industrial tours, field trips and encouraging students for Internship in Industries so as to bridges the gap between the world of work and academia and providing them an opportunity to apply their class room knowledge to live issues in the Industry
- **Concern to First Year B. Tech. Students**: Special care is taken for first year B. Tech. students by providing faculty mentors to help them to adapt to engineering subjects, equipping to take up their core program education, providing guidance on communication and presentation strategies and motivated to handle seminars, group activities and power point presentations.
- **Under graduate research programme**: Implemented with an objective to provide practice school training to the students by introducing project at early stage in second year. Every semester the mentor will guide the team of students a mini project and the students will complete the mini project and submit a report which enables the team work, presentation skills in the form of oral and writing skills.
- worked as Professor Incharge for P.G. Courses at GNDEC, Bidar during 2019-2011
- Financial assistance for presenting the paper at International Conference is sanctioned under Visvesvaraya Technological University research grants scheme for presenting the paper entitled "Solar global radiation predictions for India using ANN Model" in the third International conference on Solar Radiation and Day Lighting held at Indian Institute of Technology-Delhi during February 2007
- Serving as Alumni of National Institute of Technology, Warangal
- Qualified in GATE 1992 and secured admission for M.E. (Heat Power) at Govt. Engineering College, Jabalpur
- Received Scholarship from MHRD, Government of India for 18 months during M.Tech course at Govt.
 Engineering College, Jabalpur
- Fellow (FIE) of Institution of Engineers (India) since March 2012
- Life Member (LMISTE) of Indian Society for Technical Education since January 1991

- Received National Merit Scholarship for the entire High School Study at C.A.M High School, Nellore during 1979-1982
- Secured first position in seventh standard and received Gold Medal and Cash Prize from S.C.C.O.U.P. School, Nellore for the year 1978-1979
- worked as Principal at various Engineering Colleges for 10 years 8 months
- With long years of experience in Academics and Research, taken active part in building strong academics and Research at Institute and in specific Department levels at Institutions worked
- **GATE / GRE/ GMAT Training**: Students capability in engineering concepts, managerial skills, engineering mathematics and general aptitude are improved through focused training in a planned manner for admission into post graduate courses in India/abroad, Jobs in Public Sector Under takings and Junior Research Fellowship in Research Labs
- Hands on Training in AUTOCAD/ MATLAB/ CATIA/ ANSYS Tools
- NSS: Encouraged students to participate in NSS which is focused on personality development
 through social service by adopting villages and conducting health awareness programs, blood
 donation camps and women empowerment.
- **Cultural activities:** Encouraging the students to participate in cultural activities to learn and practice presentation skills, team building, planning and logistics
- Supported both students and faculty volunteerism in taking part various social activities
- Attained more than 90% result in subjects taught with excellent feedback from the students
- Good record of attending conferences and academic events
- Proposed a project for establishment of Control Systems Laboratory to AICTE, New Delhi under MODROBS at GNDEC, Bidar and got sanctioned a grant of Rs. 5.0 lakhs for the same
- Established Strength of Materials Laboratory, Thermal Engineering Laboratory, Machine Tools Laboratory and Heat Transfer Laboratory
- Participated in curriculum revision meetings of Visvesvaraya Technological University conducted at various Engineering Colleges in Karnataka during 2002 and 2006 as an academic incharge
- Worked as Professor Incharge for VTU recognized Research Centre at GNDEC, Bidar to promote the research activity in emerging areas during 2019-2011
- Organized Visvesvaraya Technological University youth festival at GNDEC, Bidar during 1997
- Organized "TECHNOVISION" at GNDEC, Bidar for 5 years which is a National level technical symposium for students consisting of Quiz, Paper presentation, OSP, Vinyasa, e-Tronic, Puzzle mania, Project Exhibition and Campus calling. Also organized TEXTREME and VAIVIDHYA which are national level technical symposiums for students at JCET and MLEC for 5 years
- Established the network every year with alumni and organized the alumni meet every year in college premises

Introduced Innovations in Academics and Research

- Introduced the cross departmental research team building and knowledge pool to solve the problems.
- Developing centre of excellence identifying the new technologies to get the employability for students in the industry.
- Implemented undergraduate research to make the faculty and students partnership
- Implemented Research based teaching to make the students with hands on training.
- Introducing the students from 2nd year onwards to participate in research work and training them with out of box thinking, improving writing, and presentation skills.
- Training students well in advance to compete in idea, design and tools competition organized by various MNCs and governmental organizations.

Steering Collaborations with Industry & Institutions

- Coordinating with various departments and identifying various areas with high job potentials and Various industry partners working in the identified areas and inviting them to share the road maps to guide the students to work.
- Providing the faculty and Students an opportunity to work with industry to understand the industry requirements.
- Encouraging faculty to work in Industry-based projects and be a consultant to train and work with Industry.
- Collaborating with various Industry partners, Government R&D Institutions and reputed University faculties.
- Conducting regular alumni meets and sharing the ideas and opening the facilities for students and faculty to work.

Enhancing the quality of Research outcomes

- Encouraging the faculty and students to participate in National and International conferences which are best place to meet various types of people industry, R&D and academia and make good relationships to continue in collaborate research and academic exchanges.
- Research will help the faculty to teach knowledge that is more practical and students will be working on advanced Industry Projects.
- Encouraging Students to write student-funding Projects from MSME and DST, AICTE and other agencies.
- Making aware of faculty to get funding from government either directly or on partnership to establish the state of art laboratories.

Expert Lectures

- Delivered an expert talk on motivating the staff for accreditation process on October 10, 2015
- Delivered an expert talk on "Solar Electrification in Rural Areas: Life cycle considerations" on August 17, 2012
- Delivered an expert talk on "Emerging Trends in Renewable Energy" on April 11, 2011
- Delivered an expert talk on "Application of Neural Networks to Mechanical Engineering" for faculty members on March 11, 2006

Awards / Prizes / Citations:

- Received Best Teacher award from GNDEC, Bidar during 2005
- Received appreciation and financial assistance under Visvesvaraya Technological University research
 grants scheme for presenting the paper entitled "Solar global radiation predictions for India using
 ANN Model" in the third International conference on Solar Radiation and Day Lighting held at Indian
 Institute of Technology-Delhi during 2007
- Received National Merit Scholarship for the entire High School Study at C.A.M High School, Nellore during 1979-1982
- Secured first position in seventh standard and received Gold Medal and Cash Prize from S.C.C.O.U.P.
 School, Nellore for the year 1978-1979
- Received Scholarship from MHRD, Government of India for 18 months during M.Tech course at Govt.
 Engineering College, Jabalpur

COURSES TAUGHT

- Heat Transfer
- Fluid Mechanics
- Basic Thermodynamics
- Applied Thermodynamics
- Refrigeration and Air conditioning
- Energy Engineering
- Solar Energy
- Control Engineering
- Elements of Mechanical Engineering

RESEARCH INTERESTS

- Concentrating Solar Power Systems
- Solar Thermal Systems, Solar Dish based Technologies & Solar Radiation
- Solar Resources Estimation using Artificial Neural Networks (ANN)
- Application of Neural Networks to Solar Systems and related areas of Mechanical Engineering
- Numerical HeatTransfer
- Computational Fluid Dynamics
- Refrigeration and Air Conditioning

WORKSHOPS AND SEMINARS

- Organized:
- Faculty Development Programme in association with Electronics and ICT Academy—NIT Warangal at Avanthi Institute of Engineering and Technology, Visakhapatnam during April 24-26, 2018
- "AVENSIS2K18" a National Level Youth Fest at Avanthi Institute of Engineering and Technology, Visakhapatnam during March 16-17, 2018
- "AROHI-2K17" a National Level Managerial Symposium at Avanthi Institute of Engineering and Technology, Visakhapatnam on December 22, 2017

- "VAIVIDHYA-17" a National Level Technical Symposium at Malineni Lakshmaiah Engineering College, Singarayakonda on March 20, 2017
- Two day workshop on "Hands on Training on VLSI Design" at at Malineni Lakshmaiah Engineering College, Singarayakonda during August 21-22, 2017
- Two day workshop on "Total Station and GIS" at at Malineni Lakshmaiah Engineering College, Singarayakonda during August 21-22, 2017
- "VAIVIDHYA-16" a National Level Technical Symposium at Malineni Lakshmaiah Engineering College, Singarayakonda on February 10, 2016
- Two day workshop on "Hands on Training in the Applications of MATLAB" at ABR College of Engineering and Technology during November 25-26, 2015
- "TEXTREME-2K14" a National Level Technical Symposium at Jagan's College of Engineering & Technology, Nellore on March 8, 2014
- "TEXTREME-2K13" a National Level Technical Symposium at Jagan's College of Engineering & Technology, Nellore on February 2, 2013
- "TEXTREME-2K12" a National Level Technical Symposium at Jagan's College of Engineering & Technology, Nellore on February 20, 2012
- Two-day National Conference on "Total Quality Management" during the period December 20-21, 1996
- Three day National Workshop on "Virtual and Computer Integrated Manufacturing "during the period February 6-8, 2009
- Two-day National Conference on "Applications of Statistics in Engineering and Research" during the period March 26-27, 2010

Attended:

- International conference on "Solar Radiation and Day Lighting" at Indian Institute of Technology-Delhi, India, during February 7-9, 2007
- International Conference on "Issues and Challenges in Energy Conservation and Management" at Indian Institute of Technology (BHU) Varanasi, India during December 18-20, 2009
- National Renewable Energy convention- 2001 at Hyderabad organized by Regional Engineering College, Warangal during December 27-29, 2001
- Workshop on "Perspectives in Modern Control Systems Engineering" at Indian Institute of Technology, Kanpur during the period May 25 - 30, 1998
- National Seminar on "Pollution Prevention and Control" at Regional Engineering College, Hamirpur, India during December 23-24, 1998
- o ISTE short-term course (AICTE Sponsored) on Computational Fluid Dynamics at College of Engineering, Thiruvananthapuram during the period May 19 31, 1997
- Short-term course on "Non-Conventional Refrigeration and Cryogenic Technology" during 21st July to 3rd August, 1999 held at GNDEC, Ludhiana
- ISTE short-term course on "Recent Developments in Total Quality Management" at R.V. College of Engineering, Bangalore during September 11 23, 2000
- Two day National Conference on "I.C. Engines & Related fields" at B.L.D.E.A. College of Engineering,
 Bijapur during the period November 22 23, 1997

- ISTE sponsored National Level Technical Symposium "TECHNO VISION-10" at GNDEC, Bidar during April 29-30, 2010
- National Conference on "Advanced Trends in Mechanical Engineering Research and Development" at JNTU College of Engineering - Ananthapur, India on October 18, 2001

MEMBERSHIP OF PROFESSIONAL BODIES

- Fellow (F.I.E.) of the Institution of Engineers (India)
- Life Member (LMISTE) of Indian Society for Technical Education

PERSONAL DETAILS

Date of Birth : July 1, 1965 **Martial Status** : Married

Address: Flat No.-302, Sreenilayam Apartment, Near Children's Park, Nellore-524003,

Andhra Pradesh, India

Languages Known: English, Hindi, Telugu & Kannada

Annexure -I

Research Publications

International Journals:

- Krishnaiah, T., Rajesh, CVS., and Mohanty, RC. (2019) A Review on Thermal Performance Evaluation of Solar Parabolic Trough, International Journal of Management Technology and Engineering, 9(6), 175-182
- Krishnaiah, T., Srinivasa Rao, S., and Madhumurthy, K. (2012) Life Cycle Cost Analysis of Solar Stirling
 Dish Power Generation System. Journal of Energy Sources, Part B: Economics, Planning, and
 Policy,7(2), 131-139
- Krishnaiah, T., Srinivasa Rao, S., and Madhumurthy, K. (2009) Solar Stirling Dish Power Generation Atlas of India. Cogeneration and Distributed Generation Journal, 24(2), 35-50
- Krishnaiah, T., Srinivasa Rao, S., Madhumurthy, K., and Reddy, K.S.(2008) Modeling and Simulation of a Gamma type Stirling Engine Powered by a Solar Parabolic Dish Collector, European Journal of Scientific Research, 20(1), 163-176
- Krishnaiah, T., Srinivasa Rao, S., Madhumurthy, K., and Reddy, K.S. (2007) Neural Network Approach for Modeling Global Solar Radiation, Journal of Applied Sciences Research, 3(10), 1105-1111

National Journals:

• Krishnaiah, T., Srinivasa Rao, S., and Madhumurthy, K. (2009) Techno-economic analysis of Solar Dish-Stirling System for Power Generation in India. ANU Journal of Engineering and Technology, 1(2), 61-64

International Conferences:

- Krishnaiah, T., Srinivasa Rao, S., and Madhumurthy, K. (2009) Numerical investigation of combined radiation and natural convection heat loss in a solar cavity receiver, In: Proceedings of International Conference on Issues and Challenges in Energy Conservation and Management, Indian Institute of Technology (BHU), Varanasi, India, 409-416
- Krishnaiah, T., Srinivasa Rao, S., Madhumurthy, K., and Reddy, K.S. (2007) Solar global radiation predictions for India using ANN Model, In: Proceedings of the third International conference on Solar Radiation and Day Lighting, Indian Institute of Technology-Delhi, India, 91-98

National Conferences:

- Krishnaiah, T., Reddy, K.S., and Ranjan, M. (2001) Solar Resource Assessment using Artificial Neural Networks. In: Proceedings of National Conference on Advanced Trends in Mechanical Engineering Research and Development, JNTU College of Engineering -Ananthapur, India, 257-265
- Krishnaiah, T. (1998) CFCs and Ozone Depletion-A Global Issue. In: Proceedings of National Seminar on Pollution Prevention and Control, Regional Engineering College, Hamirpur, India, 98-104

Annexure -II

Research Activities:

a. Current Research Work:

- 1. Solar Resources Estimation using Artificial Neural Networks (ANN)
- 2. Comparison of estimated Solar Resources with other empirical models
- 3. Design and Performance evaluation of Solar Dish based Power Generating Systems
- 4. Study of combined natural convection and surface radiation heat transfer in various cavity receivers of Parabolic dish collector
- 5. Mathematical modeling of Stirling engine
- 6. Assessment of solar electrical power generation potential for typical locations in India
- 7. Preparation of an Atlas to project solar power generation potential with special reference to India
- 8. Economic viability of solar dish-based technologies for decentralized power generation for Indian Conditions
- 9. Cost effectiveness of other decentralized power generation technologies
- 10. Comprehensive methodology to utilize solar dish-based technologies for decentralized power generation technologies in rural and remote locations in India
- 11. Thermal modelling and analysis
 - Modelling of thermal profile of critical areas using Ansys Software
 - Identify the critical areas and look for various mitigating processes to meet the requirements.

b. The future research work

- 1. Thermal engineering and analysis
- a. EV Batteries are extremely sensitive to temperature. Thermal management is critical to reduce temperature variations and to avoid thermal runaway. As a battery's temperature increases, its rate of chemical reactions and performance can improve. However, at one point, a rise in temperature may cause permanent damage. Thermal management simulation is required to produce a cost-effective cooling device and safe battery.

- b. EV Batteries can be exposed to a variety of situations that can compromise their safety. To ensure battery durability, it is necessary to simulate and optimize housing designs and reinforcements to build the safest battery.
- 2. Design and development of thermal systems for various applications hot water for hotels, hostels, hospitals, dairy forms, pharmaceuticals and chemical industries
- 3. Development funding research proposals Proposal for DST, SERB, DRDO, ISRO, BARC, MNC and Industry partners
- 4. Development of interdisciplinary research programs to support industry applications
- 5. Development of Academia Industry partnerships and attracting the consultancy Opportunities and also good employability for students
- 6. Development of Centre of excellence to train the students in advanced technologies

Annexure-III Accreditation

- Sound knowledge in NAAC, NBA Accreditation works
- Got awarded NAAC Accreditation at Avanthi Institute of Engineering and Technology, Visakhapatnam
 as Principal by identifying the requirements and team of faculty members, IIQA Process, Preparing Self
 Study Report (SSR), DVV Process, Student Satisfaction Survey Process and Peer Team Visit and got
 NAAC Accreditation awarded
- The awarded NAAC Accreditation is in the revised process is being adopted by NAAC from July 2017
- Sound knowledge in NAAC accreditation frame work such as IIQA Process, all the seven criteria basis
 of assessment and other NAAC parameters, Preparing Self Study Report (SSR), insights of DVV
 Process, Student Satisfaction Survey Process and Procedures of Peer Team Visit
- Familiar with **outcome-based education** (OBE) which is a student centric approach
- Prepared the Annual Quality Assurance Report (AQAR) and submitted to NAAC
- Worked for Development and maintenance of Institutional database for the purpose of maintaining/ enhancing the institutional quality
- Organized "Transformation through NAAC Accreditation Process A five-day National Level Workshop" at Avanthi Institute of Engineering and Technology, Visakhapatnam in association with Electronics and ICT Academy of NIT Warangal
- worked for development of quality culture in the institution and Development of quality parameters for various academic and administrative activities of the Institution