

Sa.K. Vishnoo Prathap

X-35(new no.)/ X-5(old no.), Plot No: 4318,

5th main road, Anna Nagar, Chennai -600040, Mobile : +91-9176662527

Tamil Nadu, India.

Email ID: vishnooprathap.energy@gmail.com

Career Goals

To get elevated in the field assigned, by exploring my skill and working hard as true to my conscience for the upliftment of the Organization as well as my personal growth. Personally, I aspire to make the world a safe and eco -friendly place to live in with state of the art technology.

Academic Qualification

M.Tech. (Energy Engineering)

Institution : A.C.S. Group of institutions, Chennai. (UGC, NBA, NAAC, ISO approved)

University : Dr. M.G.R. Educational & Research Institute
(Deemed to be University), Chennai- 95

Year of passing : 2016

Award : First class with Honors, Gold medalist University Rank-1

M.Sc. (Environmental Science)

Institution : School of distance education, Bharathiar University.

University : Bharathiar University, Coimbatore

Year of passing : 2019

Award : NA

B.E. (Mechanical Engineering)

Institution : PRINCE Dr.K. Vasudevan College of Engineering & Technology,
Chennai- 123.

University : Anna University, Chennai.

Year of passing : 2014

Award : First Class

Technical Skills

- Autodesk AutoCAD
- Autodesk Simulation CFD
- Autodesk Flow Design
- Autodesk Inventor Fusion
- Autodesk 123D circuits
- Autodesk Sketchbook PRO
- ANSYS 17.0 Fluent & Workbench
- SolidWorks (basic part modeling)
- Corel Draw Graphics Suite X7
- MS Office Word
- MS Office Power Point
- MS Office Excel
- 3D Printing (FDM, DLP/SLA)
- Arduino (mini programming- open source)
- Open Rocket 15.03 (open source)
- Space CAD (open source)

Work Experience

1. Project Scientist and Head C.S.R.S.R.

Centre for Smart Robotics, Space Technology & Renewable Energy
Advanced Research Institute, Dr. M.G.R. Educational & Research Institute, Chennai - 600095, TN, India.
From 2nd April 2018 to Till Date

2. Research Faculty & Space Projects Lead

Advanced Research Institute, Dr. M.G.R. Educational & Research Institute, Chennai - 600095, TN, India.
In-charge of Centre for Smart Robotics, Space Technology & Renewable Energy
From 23rd May 2017 to 32st March 2018

3. Senior Project Engineer

MHRD Teaching Learning Centre for Designing and Manufacturing Education
Indian Institute of Information Technology Design and Manufacturing, Kancheepuram, Chennai - 127, Tamil Nadu India.
From 4th November 2016 to 31st March 2017

4. Research Intern

Advanced Research Institute (ARI),
Dr. M.G.R. Educational & Research Institute University, Chennai - 600095, TN, India. Researcher for ***Renewable energy, Electric propulsion, Rocketry and UAVs.***
From 18th August 2014 to 31st May 2016.

Student Mentorship - Indian Institute of Information Technology Design & Manufacturing, Kancheepuram.

I had been given the privilege to guide and mentor international students of various departments throughout their internship at the institute during their stay in India.

1. Noriko Khibashi, Dept. of Mechanical Engineering, Nagaoka University, Niigata, Japan. (TLC and TCS Project)
2. Yusuke Takahashi, Dept. of Computer Science Engg. Nagaoka University, Niigata, Japan. (TCS Project)
3. Shinsuke Tsuge, Dept. of Computer Science Engg. Nagaoka University, Niigata, Japan. (TCS Project)

Additionally, I had mentored and assisted 20 Undergraduate teams for their Final year projects. I had assisted 5 master's students and 3 doctoral candidates in their thesis preparation, research ethics and design aspects at IIITDM- Kancheepuram.

Training Details

[1] Chennai Metro Rail Limited

Implant Training- operations, maintenance, administration and energy auditing.
From 28th July 2015 to 12th August 2015.

[2] Aerotrix, Skyfi labs, Chennai.

Training program on RC Aircraft Design.
From 14th to 16th August 2015.

[3] Centre For Space Science and Technology Education in Asia And the Pacific (CSSTEAP)

7th International Course on Small Satellite Mission
From 26th Nov to 8th December 2018.

Areas of Work & Research Interest

a) Drone Technology:

1. Unmanned Aerial Vehicle Propulsion (Electric)
2. Aerodynamic structure design
3. Blended wing body and Flying wing configurations
4. Renewable Energy Powerplant for propulsion

b) Space Vehicles and Satellite Technology Development:

1. Satellite Launch Vehicles & RLV Shuttles
2. Space Craft Thermal Control Systems
3. Space dry dock and Space Manufacturing
4. Ancient Technology from Vedic Texts
5. Autonomous Space Probes for interplanetary travel

c) Space Propulsion Technology Development:

1. Smart Propulsion System
2. Solar Electric Propulsion
3. Smart Ejectors / De-orbitors
4. Smart Energy Storage

d) Environmental Science and Engineering:

1. Smart Environment Control System
2. Waste heat to energy

e) Agriculture Engineering:

1. Hydroponics
2. Aeroponics

Seminars / Workshops Attended

- [1] One day workshop on “**Research Trends in Finite Element Analysis**” held on 15th march 2013, organized by the Department of Mechanical Engineering, SSN College of Engineering, Chennai.
- [2] Three-day workshop on “**Ansys**” held from 27th- 29th September 2013, conducted during International Techno- management Fest- GraVITas 2013 at VIT University, Vellore.
- [3] IEEE Young Professionals in Space, CanSat boot camp, 24-26th November 2017, Sterling Mac Hotel Bengaluru.
- [4] Indian Technical Congress 2018 – International Seminar on Student Satellite Mission, 5th -6th September 2018, NIMHANS Convention Centre, Bengaluru.

Conferences Attended / Exhibited / Published

- [1] International Conference on Engineering Innovations and Solutions 2016, “*Design and Analysis of Airborne Renewable Energy System*”, Dated 22nd April 2016.
- [2] Research Conversazione, R&D, *3 minutes Research pitch presentation conference*, dated 11th March 2016.
- [3] Presented, “Design and Fabrication of a Smart Punching Bag with Micro Energy Generator”, IEEE TENSYP 2017, Kochi conference, 14-16 July 2017 (Authored by Noriko Ishibashi, Sa.K. Vishnoo Prathap, S.R. Pandian)
- [4] Indian International Science Festival, Young Scientist Conference October 5th – 6th 2018, Lucknow. Presented research under Make in India Category, “*Design and Analysis of Airborne Renewable Energy System*”

List of Publications

- [1] Optimizing the Lighting System in a Commercial Railway Depot Using Energy Audit Technique, *International journal of applied engineering research*, Vol.10, No. 18, October 2015, pp. 38720-38723, Scopus, Annexure II, ISSN 9734562.
- [2] Design and Analysis of Airborne Renewable Energy System, *SSRG International Journal of Mechanical Engineering (SSRG-IJME)*, Special Issue- SSRG-IJME - ICEIS Part-I 2016, E- ISSN: 2348 – 8360.

List of Projects Pursued from 2013-2019

S.No	Project Title	Duration	Status
1.	Design and Fabrication of Unmanned Ground Vehicle	January 2013-	Completed
2.	Experimental study on Electric Ducted Fan with multistage axial compressor for electric propulsion of UAV's	January 2014-April 2014	Completed
3.	Design and Analysis of Airborne Renewable Energy System	September 2015-	Completed
4.	Experimental Study of Energy Harvesting using	April- May 2016	Completed
5.	Design and Fabrication of Remote Controlled Unmanned Aerial Vehicle	August 2015- May	Completed
6.	Design and Fabrication of a Smart Punching Bag with Micro Energy Generator	November 2016-	Completed
7.	Energy Harvesting from Coconut/ Aracanut Tree using Rack and Pinion Mechanism assisted by Gravity & Wind	November 2016-February 2017	Completed
8.	Computational and Analytical Aerodynamics Study of Rooftop fitted Solar Panel in LHB Railway Coach	February 2017-December 2017	Completed
9.	Arduino Controlled Solar Powered Environmental Monitoring System	March 2017-	Completed
10.	Arduino Controlled Servo Pneumatic Ball Valve	15-17, March 2017	Completed
11.	Design and Development of Renewable Energy powered Autonomous Smart Ocean Surface Vehicle	December 2017-	Completed
12.	Computational Analysis of Autonomous Satellite Cargo Launch Vehicle	December 2018-	Completed
13.	Design and Development of an Autonomous Submersible Bio Mimicking Fish	March 2019-May 2019	Completed

Non-Technical Skills

- Honest, Loyal and hardworking.
- Willingness to learn.
- Good teamplayer.
- Good communication skills, optimistic and positive attitude
- Environment and Extraterrestrial affairs policy and legislation visionary for a better future.
- Aspiration to make fiction a reality.

Personal Details

Father's name : K. Sashikaanth
Mother's name : S. Rajarajeswari
Date of Birth : 22-05-1993
Sex/ Civil Status : Male/ Single
Religion/ sub caste : Hindu
Nationality : Indian
Hobbies : a) Palace and Manor Houses Architecture.
b) Open World Simulation Gaming
c) Reading fiction and non-fiction books.
d) Model making
e) Black & white Sketching / drawing (Buildings and landscape)
f) Coat of arms, Crests and Flag design.

Professional References

- 1) D. Pandurengan, (Ex. VRDE-DRDO Scientist), Former GM Design & Development-Tata Advanced Materials Bengaluru, Currently -Director Defence Projects, Adanced Research Institute, Dr.MGR Educational and Research Institute
Phone: +91-9741329350, email: d_pandurengan@rediffmail.com
- 2)Dr. S.R. Pandian, Visiting Faculty, IIITD&M- Kancheepuram.
phone: +91- 9940298725, email: srp@iiitdm.ac.in
- 3) Dr. P. Aravindan, Principal Director- Research, Dr.MGR Educational and Research Institute, Chennai.
phone: +91-9444012087, email id: palaniaravindan@gmail.com
- 4) Er. N. Kamaraj, Senior Mechanical Engineer, Design and Development Office Shell division, Integral Coach Factory, Ministry of Railways, Govt. of India,
phone: +91-8220741282, email id: kamarajenergy@gmail.com
- 5) Dr. P. Murugan, Group Head and Scientist, IRS, URSC, ISRO
Email: muru@ursc.gov.in
- 6) Padmashri Prof. R.M. Vasagam, Chancellor, Dr. M.G.R. Educational and Research Institute. Email: vasagam@gmail.com
- 7) N. Charan, Assistant Director, Ministry of Water Resources, River Development & Ganga Rejuvenation, Phone:9840880354
- 8) S. Nagarajan, Design Head, Ashok Leyland, Chennai.
phone: +91-9840700595, email: nagarajan.defence@gmail.com

DECLARATION

I hereby declare that the above information given are true and correct to the best of my knowledge and belief

Place: Chennai

Date: 18/05/ 19

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Sa.K. Vishnoo Prathap', written in a cursive style.

Sa.K. Vishnoo Prathap