# **CURRICULUM VITAE**

Dr.P.NAVANEETHA KRISHNAN Assistant Professor (Sr.Gr.) Department of Mechanical Engineering UCE - BIT Campus, Tiruchirappalli 620 024

Contact no: 9444036810

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## > Research Area:

- Alternative Fuels
- Energy and Environment
- I C Engines

## **Educational Qualifications:**

Qualification	College/University	Year of completion	Percentage	Class
Ph.D. (Mechanical Engg.)	UCE – BIT Campus / Anna University, Chennai	Jan' 2016	-	-
M.Phil.	-	-	-	-
PG (M.E Engg. Design)	College of Engineering, Guindy / Anna University, Chennai	Apr' 2005	6.88 (CGPA)	First Class
UG (B.E. – Mechanical Engg)	PSNA College of Engg and Tech. / Madurai Kamaraj University	APR. 1996	60.33	First Class
Others	-	-	-	-

# **Experience:** (chronological order)

Name of Company / Institutions	Designation of Post	From	То	Experience in Year
UCE, BIT CAMPUS, ANNA UNIVERSITY, TIRUCHIRAPPALLI	Asst Professor (sr. Gr.)	03-06-2015	05-09-2023	8 Years 3 Months
UCE, BIT CAMPUS, ANNA UNIVERSITY, TIRUCHIRAPPALLI	Asst Professor	19-08-2009	02-06-2015	5 Years 9 Months
BHARATHIDASAN INSTITUTE OF TECHNOLOGY, ANNA UNIVERSITY, TIRUCHIRAPPALLI	Lecturer	03-04-2007	18-08-2009	2 Years 4 Months
K C G COLLEGE OF TECHNOLOGY, CHENNAI	Lecturer	08-02-2006	30-03-2007	1 Year 1 Month

### > Awards / Honours Received:

- 1. Certificate of appreciation for secured 100% result in SOM for Mechanical Engg. in the year of 2020
- 2. Certificate of appreciation for secured 100% result in Design of Machine Element in the year of 2022

## **Additional / Academic Responsibilities at University:**

1. --

## **Membership of Scientific and Professional Societies:**

- 1. Life time member in the Institution of Engineering India
- 2. Life time member in the Indian Society for Technical Education
- 3. Life time member in International Association of Engineers

## > Fellowships and Grants received:

➤ Nil

## **Completed PG/UG Projects:**

- a. Number of PG Projects Completed: 12 Nos
- b. Number of UG Project Completed: 60 batches

## **Research Guidance (M.S/Ph.D.) (Completed):**

Sl. No	Name of the scholar	Title of the thesis	Year of	Date of
NO	Scholar		registration	viva voce
1.	-	-	-	-

## > Research Guidance (M.S/Ph.D.) (Ongoing):

SI. No	Name of the scholar	Tentative Title of the thesis	Year of registration	Status
1.	1. R.Saravanan	Experimental study of emissions and combustion performance of diesel engine	Jan 2018	doing

### **Publications:**

### a. Books / book chapters:

1. þÂó¾¢Ã À¡,í¸û ÅÊÅ"Áò¾ø, þÇí¸"Äô ¦À¡È¢Â¢Âø - ãýÈ¡õ ¬ñÎ

#### b. **International Journals:**

- 1. Vivekanandan V, **Navaneetha Krishnan P**, "Appropriation of bio-diesel blends in diesel engine", International Research journal of Environmental Science, Vol. 3 (2), 2008, pp. 245 250.
- 2. **Navaneetha Krishnan, P** & Vasudevan, D, 'Performance, Combustion and Emission Characteristics of Variable Compression Ratio Engine Fuelled with Biodiesel', International Journal of Chem-Tech Research, vol. 7(1), 2014,pp. 234-245.
- 3. **Navaneetha Krishnan, P** & Vasudevan, D, 'Experimental and Analytical investigation on the performance characteristics of CI Engine Fueled with Tamanu oil methyl Esters', International Journal of Applied Engineering Research, vol. 10(39),2015, pp. 29610-29616.
- 4. R.Saravanan, **P.Naveetha Krishnan**, 'Emission Analysis of Four Stroke Single Cylinder Ci Engine Fueled With BME Biodiesel and its Blends', International Journal of Applied Engineering Research, Vol.10 No.71, 2015,pp. 41-46.
- 5. Joseph ArunPrasath.V.P, **Dr. NavaneethaKrishnan.P**, Dr.SenthilKumar.T, and Dr.Kumaragurubaran.B, "Experimental Investigation and Performance Enhancement of Parabolic Trough Solar Concentrator with PCM Bed", International Journal of Engineering Trends and Technology, Vol. 35 (7), 2016, pp. 318 322.
- 6. Joseph Arun Prasath.V.P, **Dr. Navaneetha Krishnan .P**, Dr. Senthil Kumar.T, and Dr.Kumaragurubaran.B, "Design of Parabolic Solar Concentrators and Their Performance Comparison", International Journal for Research & Development in Technology, Vol. 5 (5), 2016, pp. 296 300.
- 7. Santhosh Kumar, **Dr.P.Navaneetha Krishnan**, Dr.T.Senthil Kumar, and Dr.B.Kumaragurubaran, "Performance Optimization of Diesel Engine with Watermelon Seed Oil Blend Using Taguchi-Grey Relational Analysis", International Journal of Engineering Science and Computing, Vol. 6 (5), May 2016, pp. 5231 5234.
- 8. T.Archanadevi, **Dr.P.Navaneetha Krishnan**, Dr.T.Senthil Kumar &Dr.M.Chandrasekar, "Design and Performance Analysis of Conical Shape Aluminium Collector", International Journal of Research Science and Engineering, Vol. 2(6), 2016, PP. ID. 320150.
- 9. S.Marimuthu, **Dr.P.Navaneetha Krishnan**, Dr.T.Senthil Kumar & Dr.M.Chandrasekar, "Experimental Study and Analysis of Parabolic Trough Collector with Anodized Aluminum and MS Sheet with Ni-Cr Plating as Reflectors", International Journal of Research Science and Engineering, Vol. 2(6), 2016, PP. ID. 320260.
- 10.**P.Navaneetha Krishnan** & D.Vasudevan, "Experimental and analytical investigation on the emission and combustion characteristics of CI engine fueled with tamanu oil methyl esters", Thermal Science, Vol. 20(suppl.4), 2016, pp. 1099-1109.
- 11.R,Saravanan and **P.Navaneetha Krishnan**, "Emission Analysis of Four Strokes Single Cylinder CI Engine Fueled With Mahua Longifolia Biodiesel and Its Blends",

- International Journal of Transactions on Innovations in Science and Technology, Vol. 1(2), 2016, pp. 01 07.
- 12.R,Saravanan and **P.Navaneetha Krishnan**, "Experimental Studies on Exploitation of Worn Transformer Oil (RTO) as a Substitute Fuel in a DI Diesel Engine", International Journal of Transactions on Innovations in Science and Technology, Vol. 1(4), 2016, pp. 16 21.
- 13.**P. Navaneetha Krishnan**, T. Senthilkumar and G. Manikandan, "Fabrication and Analysis of Diffusion Bonded Joints between Magnesium and Copper using Nickel Interlayer", International Journal of Transactions on Innovations in Science and Technology, Vol. 1(4), 2016, pp. 26 30.
- 14.**P. Navaneetha Krishnan**, T. Senthilkumar and S. Marimuthu, "Evaluating the Effect of Plasma Spray Coating on Mechanical and Metallurgical Properties of Steel Substrates", International Journal of Transactions on Innovations in Science and Technology, Vol. 1(4), 2016, pp. 31 39.
- 15.Arunkumar. G, **Dr. P. Navaneetha Krishnan** and Dr. T. Senthil Kumar, "Experimental Enhancement of Heat Transfer Analysis on Heat Pipe using SiO<sub>2</sub> and TiO<sub>2</sub> Nano Fluid" International Journal of Trend in Scientific Research and Development (IJTSRD), ISSN: 2456-6470, Volume-2(4), June 2018, pp. 811 815.
- 16.P. Sakthivel, G. Arunkumar, **P. Navaneetha Krishnan**, R. Ramkumar and P. Parameswaran, "Experimental Heat Transfer Analysis on Heat Pipe using Sio<sub>2</sub> and Tio<sub>2</sub> Nano Fluid", Journal of Applied Fluid Mechanics, Vol. 11, July 2018, pp. 91 101. ISSN 1735-3572, EISSN 1735-3645 \*
- 17.M. Aravind Raj, **P. Navaneetha Krishnan**, T. Senthilkumar "Thermal Energy Storage System Using Phase Change Material (PCM)", International Journal of Advanced Research in Basic Engineering Sciences and Technology (IJARBEST), Vol. 5, issue 5, May 2019, pp. 10 15.
- 18.V. Senthil Kannan, K. lenin, P. **Navneethakrishnan** "Machining parameters optimization in laser beam machining for micro elliptical profiles using TOPSIS method" Materials Today: Proceedings, Vol. 21, Part 1, 2020, pp. 727 730
- 19.S.Dharmalingam, K. Lenin, **P. Navaneetha Krishnan** "Comparative analysis of cylindrical thread and straight square profile pin on ultimate tensile strength of AA8011/AZ31B in friction stir butt welding", Materials Today: Proceedings, Vol. 21, Part 1, Aug 2019, 05–Feb 2020, pp. 523 526.\* ISBN: 2214-7853
- 20.Saravanan R and **P.Navaneetha Krishnan**, "Performance and Emission Analysis of Di Diesel Engine Fueled with WMCNS Oil and it's Blends", International Journal of Tierarztliche Praxis, Vol. 40, July 2020, pp. 234 243. ISSN: 0303-6286

#### c. National Journals:

1. Navaneetha Krishnan. P & Vasudevan, D, 'Experimental Study on Performance and Exhaust Emission Characteristics of a C.I. Engine Fueled With Tri Compound Oxygenated Diesel Fuel Blends', Indian Journal for Science and Technology, vol. 8(1), 2015,pp. 96-102.

- 2. **Navaneetha Krishnan, P** & Vasudevan, D, 'Experimental Study on Performance and Exhaust Emission Characteristics of a C.I. Engine Fueled With Tri Compound Oxygenated Diesel Fuel Blends', Indian Journal for Science and Technology, vol. 8(4), 2015,pp. 307-313.
- 3. S.Sathiyaseelan, **P.Navaneetha Krishnan**, Design of Low Pressure Economizer in Fossil Boiler Using Numerical Simulation Analysis', International Conference on Energy Efficient Technologies For Automobiles, Journal of Chemical and Pharmaceutical Sciences, Vol. 6, 2015, pp. 217 222.
- 4. R. Vijayarahavan, **P.Navaneetha Krishnan**, Experimental and Comparative Study on Solar Water Collector Using Co<sub>2</sub>', International Conference on Energy Efficient Technologies For Automobiles, Journal of Chemical and Pharmaceutical Sciences, Vol. 6, 2015, pp. 228 229.
- 5. M. Ramamoorthi, **Navaneethakrishnan P**, 'Performance Analysis of Mustard and Pongamia Methyl Ester Blends with Diesel in CI Engine', International Conference on Energy Efficient Technologies For Automobiles, Journal of Chemical and Pharmaceutical Sciences, Vol. 6, 2015, pp.257 259.
- 6. R.Saravanan, **P.Navaneetha Krishnan**, Experimental & Performance Analysis of Four Stroke CI Engine on Sapotaceae Biodiesel And Its Blends', International Conference on Energy Efficient Technologies For Automobiles, Journal of Chemical and Pharmaceutical Sciences, Vol. 6, 2015, pp. 312 315.
- 7. Saravanan, R., **Navaneethakrishnan**, **P.**, & Rajkumar, D. (2018). "Assessment of Fabricated Aluminium Alloy Channels: Process Capability Index', Engineering Reports, Vol.1(1), pp. 28-33.

#### **Patents:**

S.No.	Reference Number	Title	Year of Publication	Inventor (s)	Indian/US /PCT/
					others
1	Vol: 35, No: 46	Corrosion, Performance,	18 <sup>th</sup> Nov	Dr.P.Navaneetha	Australian
	<b>.</b>	Combustion, Emission	2021	Krishnan and	Official
	Patent number:	Analysis of Four Stroke		Mr.R.Saravanan	Journal of
	2021105245	Single Cylinder Di-			Patents –
		Diesel Engine Loaded in			Certificate
		Cissus Quadrangularis			of Grant
					Innovation
					Patent

### > **Sponsored Research Projects:**

Sl.No	Name of the project	Funding agency	Project value (Rs.)	Duration	Status
-	-	-	-	-	-

## **Consultancy Activities:**

Sl.No	Name of the work	Role (PI/Co PI)	Agency	Amount	Duration
-	-	-	-	-	-

### List of Seminar / Short Term Course /FDP/ Workshop organized:

- 1. Organized one week TEQIP II sponsored Faculty Development Programme on "Numerical Methods and Optimization Techniques in Mechanical Engineering" conducted by the Department of Mechanical Engineering, Anna University, BIT Campus, Tiruchirappalli during 19-08-2013 to 26-08-2013.
- 2. Organized two days TEQIP II sponsored Technical symposium on "AUTOPIA'2014" conducted by the Department of Automobile Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli during 19-03-2014 to 20-03-2014.
- 3. Organized five days AU-FRG Institute for CAD/CAM sponsored "Students Training Programme on FEA using ANSYS" conducted by the Department of Mechanical Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli during 19-02-2020 to 23-02-2020.
- 4. Organized One day webinar on "Six Sigma Application in Automotive Industries" conducted by the Department of Mechanical Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli on 17.07.2020.
- 5. Organized One day webinar on "Engine Technology for BS6 and Beyond" conducted by the Department of Mechanical Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli on 25.07.2020.

#### List of Seminar / Short Term Course /FDP/ Workshop attended:

- 1. Participated two weeks Staff Development Programme sponsored by All India Council for Technical Education, New Delhi on "Electronic Engine Management System" conducted by Department of Automobile Engineering, Bharathidasan Institute of Technology, Bharathidasan University, Tiruchirappalli during 04th& 16thJune, 2007.
- 2. Participated one week short term training programme sponsored by Council of Scientific and Industrial research and Indian Society for Technical Education on "Industrial

- Effluent Treatment Emerging Trends & Challenges Ahead" conducted by Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University during  $11^{th}$   $15^{th}$  June 2012.
- 3. Participated one week Faculty Development Training Programme sponsored by Centre for Faculty development on "ME2251 Heat and Mass Transfer" conducted by the Department of Mechanical Engineering, University College of Engineering, BIT Campus, Tiruchirappalli during 17<sup>th</sup>– 24<sup>th</sup>December, 2012.
- 4. Participated two weeks Staff Development Programme sponsored by All India Council for Technical Education, New Delhi on "Recent Research and Development in Manufacturing Process" conducted by Department of Mechanical Engineering, M.A.M College of Engineering, Tiruchirappalli during 29th April 11th May, 2013
- 5. Participated one week Faculty Development Training Programme sponsored by Centre for Faculty development on "ME2151 Engineering Mechanics" conducted by Anna University, Chennai during 15<sup>th</sup> 19<sup>th</sup> July, 2013.
- 6. Participated Two weeks Faculty Development Programme sponsored by TEQIP II on "Advanced Manufacturing Process for Automobiles (AMPA 15)" conducted by the Department of Automobile Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli during 20th May 02nd June, 2015.
- 7. Participated Two weeks Faculty Development Programme on "Thermal Engineering Applications for Sustainable Improvement (TEASI 15)" conducted by the Department of Mechanical Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli during 15<sup>th</sup> 28<sup>th</sup> June, 2015.
- 8. Participated Two weeks Faculty Development Programme sponsored by TEQIP II on "Numerical Methods and Statistical Tools in Engineering (NMSTE 16)" conducted by the Department of Automobile Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli during 09th 22nd June, 2016.
- 9. Participated One weeks Faculty Development Training Programme sponsored by Anna University, Chennai on "AT6604 Vehicle Dynamics" conducted by the Department of Automobile Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli during 04<sup>th</sup> 10<sup>th</sup> December, 2017.
- 10.Participated One week Faculty Development Training Programme sponsored by Anna University, Chennai on "ME8594 Dynamics of Machines" conducted by the Department of Mechanical Engineering, University College of Engineering, BIT Campus, Anna University, Tiruchirappalli during 06<sup>th</sup> 11<sup>th</sup> May, 2019.
- 11.Participated Twelve weeks Faculty Development Programme sponsored by All India Council for Technical Education (AICTE), New Delhi on "Fundamental of Manufacturing Processes" conducted by the NPTEL AICTE during July Oct, 2019.

- 12.Participated Twelve weeks Faculty Development Programme sponsored by All India Council for Technical Education (AICTE), New Delhi on "Engineering Metrology" conducted by the NPTEL AICTE during July Oct, 2019.
- 13.Participated Six Days Online Faculty Development Training Programme sponsored by Hindusthan College of Engineering and Technology, Coimbatore on "Nanomaterial Synthesis, Process, Characterization and its Functional Applications" organized by the Department of Automobile Engineering, Hindusthan College of Engineering and Technology, Coimbatore during  $06^{th} 11^{th}$  July, 2020.
- 14.Participated Five Days Faculty Development Training Programme on "LaTeX" organized by the University College of Engineering, BIT Campus, Anna University, Tiruchirappalli during 10<sup>th</sup> 14<sup>th</sup> September, 2020.
- 15.Participated 5 day online Faculty Development Programme organized by All India Council for Technical Education (AICTE), New Delhi on "Inculcating Universal Human Values in Technical Education" during 06th 10th Dec, 2021.
- > National / International Conferences organized / Participated:
- 1. Participated one day workshop on "Research Development in IC Engines and Alternative Fuels" conducted by Department of Mechanical Engineering, Sri Ramakrishna Engineering College, Coimbatore during 18th March, 2011.
- 2. Participated two days workshop sponsored by Ministry of Earth Science, New Delhi on "Bio-Fuel Engine and its Application BFA2013" conducted by Department of Mechanical Engineering, Annamalai University during 21stand 22ndFebruary, 2013
- 3. Participated two days workshop sponsored by Science Academies on "Recent Advances in Materials Chemistry" conducted by Department of Chemistry, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli during 07th and 08th March, 2014.
- 4. Participated three days International Conference on "Green Technology for Environmental Pollution Prevention and Control (ICGTEPC-2014)" conducted by Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli during 27th and 29th September, 2014.
- 5. Participated two days workshop on "Automotive Materials (AUTOMAT 16)" conducted by Department of Automobile Engineering, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli during 18th and 19th February, 2016.
- ➤ <u>Professional recognitions</u>: (details like chairperson/member of a committee, reviewer, editor ...etc)
  - Affiliation inspection commit member
- (A) Chairperson for conferences / Seminar / Technical symposia:
  - Nil

## (B) Guest lectures delivered:

- Delivered a lecture entitled the topic of "Optimization Technics using ANN" in Two weeks
  Faculty Development Programme sponsored by TEQIP II on "Recent Trends and Applications of
  Mathematics in Computing" conducted by the Department of Mathematics, Bharathidasan
  Institute of Technology, Anna University, Tiruchirappalli during 08<sup>th</sup> 21<sup>st</sup> June, 2016.
- Delivered a lecture entitled the topic of "Plate and Shell Elements" in Two weeks Faculty Development Programme sponsored by Anna University, Chennaion "ME6603 Finite Element Analysis" conducted by the Department of Mechanical Engineering, Government College of Engineering, Sengipatti, Thanjavur during 10<sup>th</sup> 21<sup>st</sup>December, 2018.