CURRICULUM VITAE

**B. GOBALAKRISHNAN** Contact no: **+91-9790567377** Email: **bgkrish.mech@gmail.com**

# Permanent address:

18/16, East Street, Vilanthida Samuthiram Post, Sirkali Taluk, Mayiladuthurai District, Tamil Nadu

Pin: 609 111



# CAREER OBJECTIVE

I want to get a challenging position of Assistant Professor in which I can utilize my experience and bring bright carrier for students. Also, I wish to pursue my career in an environment where my leadership qualities and wide range of skills along with an effective interpersonal skill will make a positive contribution.

# PERSONAL PROFILE

|  |  |
| --- | --- |
| Name | B. GOBALAKRISHNAN |
| Father Name | G. BALACHANDRAN |
| Date of Birth | 13/07/1987 (dd/mm/year) |
| Educational Qualification | B.E Mechanical Engineering, M. E & Ph.D. in Manufacturing Engineering |
| Nationality | Indian |
| Languages known | English and Tamil (To read, write and speak) |
| Anna University staff ID | 8107237 |
| Google Scholar ID | <https://scholar.google.com/citations?view_op=list_works&hl=en&hl=en&user=zIhnEdIAAAAJ> |
| ORCID ID | <https://orcid.org/0000-0002-7222-2441> |
| Scopus ID | <https://www.scopus.com/feedback/author/reviewAuthorProfile.uri?authorIds=57201185019> |
| Aadhaar Number | 9278 7414 9341 |
| Pan Number | BWKPG2493N |
| Passport number | J3604676 |
| Computer skills | * AUTO CAD, ANSYS, ORIGIN.
* Communication through web GCR, Hot Potato’s, Mentimeter.
* (OPERATING SYSTEMS): Windows XP, Windows Vista.
 |
| Subjects of Priority | Engineering Thermodynamics, Thermal Engineering, Materials Science, Strength of Materials, Engineering Mechanics, Composite Materials, Metal casting technology. |

**ACADEMIC PROFILE**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Qualification** | **Discipline****(Specialization)** | **Institute/University** | **Percentage****of marks** | **Year of****passing** |
| Ph.D.(Full Time) | ManufacturingEngineering | Annamalai University,Chidambaram | --- | March2021 |
| M.E.(Full Time) | ManufacturingEngineering | Annamalai University,Chidambaram | 7.34 (CGPA) | May 2014 |
| B.E.(Full Time) | MechanicalEngineering | Annamalai University,Chidambaram | 7.85 (CGPA) | May 2010 |
| HSC | Maths- Biology | State Board/S.M.H.H.School, Sirkali | 58.5 | March2006 |
| SSLC | ----- | State Board/ S.M.H.H.School, Sirkali | 74.8 | March2004 |

# RESEARCH WORK

**Ph.D. (MANUFACTURING ENGINEERING)** - Full Time Research scholar

Research Title: **“Fabrication of Al 6061 SiC MMCs and Al 6061 TiB2 in-situ formed MMCs and comparison of the properties after secondary working with theoretical predictions by finite element analysis”** under the guidance of **Dr.P.R.LAKSHMINARAYANAN,** Professor, Department of Manufacturing Engineering, Annmalai University, Annamalainagar- 608 002

# RESEARCH EXPERIENCE

|  |  |  |
| --- | --- | --- |
| 1 | Research titled | Fabrication of Al 6061 SiC MMCs and Al 6061 TiB2 in- situ formed MMCs and comparison of the properties after secondary working with theoretical predictions by finite element analysis. |
| Designation | **Research Scholar (Full time/ Regular)** |
| Department | Manufacturing Engineering, Annamalai University. |
| Periods of research | 4 Years &11 Months.(24th December 2014 to 19th December 2019) |
| 2 | Project entitled | Modelling and characterization of fracture toughness of Metal Matrix Composites. |
| Designation | **Project Assistant** |
| Funding agency | ISRO, Thiruvananthapuram- 695 022. |
| Scheme | RESPOND |
| Department | Manufacturing Engineering, Annamalai University. |
| Periods of research | 8 Months. (29th September 2011 to 29th May 2012) |

**AWARD RECEIVED**

* **Best Thesis award**, Received from Annamalai University, 2021.
* **Recognized Research Supervisor** under Anna University, December 2022
* **Doctoral Committee Member** under Anna University, December 2022

# PATENT APPLIED/FILLED

# Car Back Seat Folded Trunk Tray, Indian Patent, Application No: 202341010839, Published date: 24.03.2023

# Biceps bulking machine, Indian Patent, Application No: 202341027112A, Published date: 05/05/2023

# Design & Implementation of an Autonomous Vacuum Cleaner Robotic Mechanism, Indian Patent, Application No: 202341068609, Published date: 17-11-2023

**TEACHING EXPERIENCE**

**Polytechnic College Experience**

Department : Mechanical Engineering

Designation : **Part Time Lecturer**

Duration : 12 Months

Name of the college : **Muthiah Polytechnic College, Chidambaram-608002 Engineering College Experience**

Department : Mechanical Engineering

Designation : **Assistant Professor**

Duration : 2 Year & 4 Months (till now)

# Name of the college : CARE College of Engineering, Trichy-620009 RESPONSIBILITY IN CARE COLLEGE OF ENGINEERING

* **R&D – Department level Incharge**
* **VAC – Department Coordinator** (Modern Refrigeration and Air conditioning system)
* **IQAC – Department level Incharge**

# NAAC – 5th Criteria Incharge

* **NBA – 9th Criteria Incharge**
* **XRD Consultant INDUSTRIAL EXPERIENCE**

Department : Production Engineering

Designation : Operator

Duration : 6 Months

Name of the company : **Sakthi Auto component Limited. Erode**

Department : Structural Engineering

Designation : Junior Engineer

Duration : 6 Months

Name of the company : **Indian Commerce & Industries Co. Private Ltd. Chennai.**

# LIST OF PUBLICATIONS (International Research Journals)

1. **B. Gobalakrishnan**, P. R.Lakshminarayanan and R .Varahamoorthi, Combined effect of TiB2 particle addition and heat treatment on Mechanical Properties of Al6061/ TiB2 in-situ formed Metal Matrix Composites, Journal of Advanced Microscopy Research, 12, 230-235, 2017, <https://doi.org/10.1166/jamr.2017.1348>
2. **B. Gobalakrishnan,** P. R Lakshminarayanan and R .Varahamoorthi, Mechanical Properties of Al 6061 / TiB2 in-situ formed Metal Matrix Composites, Journal of Advanced Microscopy Research, 13, 125-130, 2018.

<https://doi.org/10.1166/jamr.2018.1368>

1. **B.Gobalakrishnan,** P. R Lakshminarayanan and R .Varahamoorthi, Effect of TiB2 particle addition on the mechanical properties of Al/TiB2 in situ formed metal matrix composites, Materials Testing, 60, 1221-1224, 2018.

<https://doi.org/10.3139/120.111273>

1. C. Rajaravi, **B.Gobalakrishnan,** and P. R.Lakshminarayanan, Effect of Pouring Temperature on Cast Al/SiCp and Al/TiB2 Metal Matrix Composites, Journal of the Mechanical Behavior of Materials, 28, 162-168, 2019, [https://doi.org/10.1515/jmbm-](https://doi.org/10.1515/jmbm-2019-0018) [2019-0018](https://doi.org/10.1515/jmbm-2019-0018)
2. **B. Gobalakrishnan,** C. Rajaravi, Gobikrishnan Udhayakumar, P. R. Lakshminarayanan, Analysis of mechanical properties of cold extruded Al 6061 TiB2 MMCs and validated for finite element analysis, Materials Today Proceedings, 43, 2, 1283-1292,2021, <https://doi.org/10.1016/j.matpr.2020.08.773>.
3. **B. Gobalakrishnan,** C. Rajaravi, Gobikrishnan Udhayakumar, P. R. Lakshminarayanan, Effect of ceramic particulate addition on Aluminium based Ex-situ & In-situ formed Metal matrix composites, Metals and materials international, Published on-line, 27, 3695–3708, 2021, <https://doi.org/10.1007/s12540-020-00868-6>.
4. C Rajaravi, U Elaiyarasan, **B Gobalakrishnan,** R Ganapathy Srinivasan, Surface roughness and microstructure analysis on drilling of titanium diboride in-situ aluminium metal matrix composite, Surface Topography: Metrology and Properties, 10, 2, 25-34, 2021, <https://doi.org/10.1088/2051-672X/ac7a54>
5. C Rajaravi, B Ganesh, S Lakshmanan, **B Gobalakrishnan**, Influence of TIG welding processing parameters on mechanical properties of austenitic stainless steel using Taguchi analysis, Materials Today: Proceedings, 72, 2402-2409, 2023. <https://doi.org/10.1016/j.matpr.2022.09.422>
6. **B. Gobalakrishnan,** C. Rajaravi, Gobikrishnan Udhayakumar, P. R. Lakshminarayanan, Effect of cold extrusion on Ex-situ & In-situ formed Metal Matrix Composites, Arch. Metall. Mater. 68 1, 171-185, (2023). <https://doi.org/10.24425/amm.2023.141491>
7. Rajaravi, C., **Gobalakrishnan, B**., Srinivasan, R. G., & Ganesh, B. (2023). Experimental analysis of mechanical properties of in-situ formed MMC from Al/TiB2/Cu and Al/TiB2. Materials Today: Proceedings. <https://doi.org/10.1016/j.matpr.2023.04.122>

# LIST OF BOOK CHAPTERS

1. Rajaravi, C., **Gobalakrishnan, B.,** Srinivasan, G., Palani, S., & Karthik. Effect of the Hardness in Al/TiB2 MMC with Sand Mould and Permanent Mould. In Materials, Design and Manufacturing for Sustainable Environment: Select Proceedings of ICMDMSE 2022. Singapore: Springer Nature Singapore. 93-103, 2022. <https://doi.org/10.1007/978-981-19-3053-9_8>
2. **Gobalakrishnan, B.,** Rajaravi, C., Maheshwaran, S., & Muthukumar, J. Influence of Cold Extrusion on Mechanical Properties of In-Situ Formed MMC. In International Conference on Sustainable Technologies and Advances in Automation, Aerospace and Robotics. Singapore: Springer Nature Singapore.129-147,2022, December. <https://doi.org/10.1007/978-981-99-2349-6_1>
3. Muthukumar, J., Santhy, K., Maheshwaran, S., & **Gobalakrishnan, B**. (2022, December). Analysis of Mechanical Properties on Bamboo E-Glass-Reinforced Composites. In International Conference on Sustainable Technologies and Advances in Automation, Aerospace and Robotics (pp. 523-541). Singapore: Springer Nature Singapore. <https://doi.org/10.1007/978-981-99-2349-6_48>

# LIST OF PUBLICATIONS (National Research Journals)

1) C. Rajaravi, P. R. Lakshminarayanan and **B.Gobalakrishnan,** Prediction of mechanical properties of Al/TiB2 MMCs cast through sand moulds by FEA validated by Experimental results, Journal of Manufacturing Engineering, 11, 208-214, 2016.

# INTERNATIONAL CONFERENCE (List of Paper Presentation)

1. **B.Gobalakrishnan,** P. R.Lakshminarayanan and R .Varahamoorthi, Experimental and Theoretical Analysis of tensile Strength on Aluminium Composites Materials, International conference on Modern Innovations in Nano Technology-Science and Engineering of Materials (MINTSEM), Organized by UGC-SAP, Annamalai University, Chidambaram, 2018.
2. **B.Gobalakrishnan,** P. R.Lakshminarayanan and R .Varahamoorthi, Mechanical and microstructural characterization of extruded Al 6061/ near nano size TIB2 particulate metal matrix composites, International conference on advanced ceramics and nanomaterials for sustainable development (ACeND-2018), Indian ceramic society, Karnataka Chapter. Bengaluru, 2018.
3. **B. Gobalakrishnan,** C. Rajaravi, D.R. Raj kumar, A. Kannan, Analysis of mechanical properties of heat-treated Al/TiB2 MMCs and validated with FEA, National level virtual conference on recent advances in materials and manufacturing, Karpaga vinayaga College of Engineering and Technology, Padalam-603308, Chengalpet, Tamilnadu,09th January 2021.
4. **B. Gobalakrishnan,** C. Rajaravi, Compare the mechanical properties of cast Al/Graphite and Al/TiB2 Metal matrix composites, National level virtual conference on recent advances in materials and manufacturing, Karpaga vinayaga College of Engineering and Technology, Padalam-603308, Chengalpet, Tamilnadu, 09th January 2021.
5. M. Manikandan, M. Kamal raj, K. Banupriya, **B. Gobalakrishnan,** Mechanical Properties of Aluminium based In-situ formed Metal Matrix Composites, International Conference on Advanced Materials Behavior & Characterization (ICAMBC\_2021), Mattest Research Academy, Chennai, Tamilnadu, 24-26, April 2021.
6. K.S. Thirumani, B. **Gobalakrishnan,** D.R. Rajkumar, Experimental Study on Fracture toughness and fatigue crack growth characteristics of Al/TiB2 MMCs, International Conference on Advanced Materials Behavior & Characterization (ICAMBC\_2021), Mattest Research Academy, Chennai, Tamilnadu, 24-26, April 2021.
7. **Gobalakrishnan B**, Muthukumar P, Maheshwaran S and Muthukumar J “Mechanical properties of Aluminium based in-situ formed metal matrix composite” presented at ICEMT-2021, International Conference on Energy and Materials Technologies (ICEMT), 20-21, August 2021, Organized by Department of Mechanical Engineering, SSN College of Engineering, Kalavakkam- 603 110, Tamilnadu.
8. Maheshwaran S, Muthukumar J, **Gobalakrishnan B,** and Muthukumar P “Effect of CR3C2/NICR coating and optimization of mechanical properties by thermal sprayed high velocity oxy-fuel coatings on stainless steel” presented at ICEMT-2021, International Conference on Energy and Materials Technologies (ICEMT), 20-21, August 2021, Organized by Department of Mechanical Engineering, SSN College of Engineering, Kalavakkam- 603 110, Tamilnadu.
9. **B Gobalakrishnan,** C Rajaravi, S Maheshwaran, J Muthukumar, Influence of Cold Extrusion on Mechanical Properties of In-Situ Formed MMC, “International Conference on Sustainable Technologies & Advances in Automation, Aerospace & Robotics- STAAAR 2022” held virtually on 16th – 17th December 2022.

# CONFERENCE ATTENDED (International)

* Participated on two-days International Conference on Automobile Engineering (ICAE 2017) “**Innovations and Future Trends in Electric and Hybrid Vehicles**” organized by the Department of Automobile Engineering, PSG college of Technology in collaboration with Clemson University- International center for Automobile Research (CU-ICAR) SC, USA during 6th and 7th January 2017.
* Participated on five days International Conference on “**Advanced Materials Behaviour & Characterization”** organized by Mattest Research Academy, Chennai during 18 - 23 July, 2020.

# DEVELOPMENT PROGRAM ATTENDED

1. Attended four-days’ workshop on “**UGC Sponsored XXIV Prof.K.S.Sonachalam Memorial workshop on Research Methodology** “organized by Department of Economics & Research and Development cell, Annamalai University, during 6th – 9th January 2015.
2. Undergone one-week Faculty Development Program on “**Achieving Publication Index Scores and Succeeding Research Projects*”*** conducted by the department of library and Information Science at Dr.Sir C.P.Ramaswami Aiyar library , Annamalai University, Chidambaram from 28th August 2017 to 1st September 2017.
3. Participated one day user awareness program on ***“*Shodhganga: A Repository of Indian Thesis and Dissertations”** sponsored by (**UGC – INFLIBNET)** Organized by

the department of library and Information Science at Dr.Sir C.P.Ramaswami Aiyar library , Annamalai University, Chidambaram on 04th February 2015.

1. Participated two-days Smarty workshop on **“Yoga for self-esteem, Memory development, Assertiveness in communication, Rapid reading, Thoughtful thesis writing”** organized by center for Yoga studies, Annamalai University during 16th and 17th February 2015.
2. 6 days AICTE Sponsored Online STTP on **“Hands on Training on MATLAB and Advanced Optimization Techniques”** organized by Government College of Engineering, Bargur, Tamilnadu during 21.12.2020 to 26.12.2020.
3. AICTE Training and Learning **(ATAL)** Academy sponsored online FDP on **"Novel Materials"** organized by National Institute of Technology Patna from 2021-2-8 to 2021-2-12.
4. 6 days STTP on **3D Printing Technology in Biomedical Field for Organ Transplant** organized by VSB Engineering college, Karur, Tamilnadu during 22.02.2021 to 27.02.2021.
5. Anna University sponsored online **Faculty Development Training Programme (FDTP) on ME8391 Engineering Thermodynamics**, Organized by Department of Mechanical Engineering, Knowledge institute of technology, Salem during 12.07.2021

-17.07.2021

1. AICTE sponsored online STTP on **Additive Manufacturing of Multi-function Nanocomposite,** Organized by Institute of Road and Transport Technology, Erode, Tamilnadu from 21.06.2021 – 25.06.2021.
2. International webinar on **“Strengthening your understanding of Research journals (Reading, Referencing and Publishing)”** Organized by K.L.Somaiya College of Science and Commerce in collaboration with ELSEVIER on 10.07.2021.
3. Five-days FDP on **Exploring Research using SEM & XRD** from 19-12-2022 to 23-12-2022 organized by Department of Mechanical Engineering, CARE College of Engineering, Trichy-620009,
4. Two Days workshop on “**Future Perspectives in Cold Spray Process and Its Applications"** organized by Department of Mechanical Engineering, Government College of Engineering, Bargur held from 05.12.2022 to 06.12.2022.
5. One day FDP on **Blooms Taxonomy in Teaching and Learning**, Organized by SanSnow's Nobel Professional Foundation on February 16, 2023.
6. Three days Virtual FDP program on the topic of **Emerging Technologies for Education and Research**, from 30.01.2023 to 01.02.2023 organized by the Sree Sakthi Engineering College, Coimbatore.
7. AICTE Training and Learning **(ATAL)** Academy sponsored Six days **FDP on Hybrid Manufacturing Technologies**, organized by Department of Mechanical Engineering, Government College of Engineering, Sengipatti, Thanjavur- 613001 from 04-12-2023 to 09-12-2023.

# MEMBERSHIP OF PROFESSIONAL BODIES

* 1. **ICS-** Indian Ceramic society- SS– 641
	2. **IRED**- Institute of Research Engineers and Doctors- AM10100057934
	3. **POMS**-Production and Operation Management Society- 34900
	4. **IAENG**- International Association of Engineers- 175286

# DECLARATION

Hereby, I declare that the information furnished above is true. If I get an opportunity to work in your concern, I assure that I shall discharge my duties to the fullest satisfaction and to the best of my ability.

Thanking you,

Date: 09.05.2023 Signature

Place: Sirkali

(B.Gobalakrishnan)