



ADDRESS

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Department of Mechanical
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LBS College of Engineering
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Dr. ANILKUMAR B C

ASSOCIATE PROFESSOR

EDUCATION

NATIONAL INSTITUTE OF TECHNOLOGY, SURATHKAL

2023

Ph.D. IN MECHANICAL ENGINEERING

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

2010-2012

M TECH IN MECHANICAL ENGINEERING (THERMAL SCIENCES)

L B S COLLEGE OF ENGINEERING

2000-2004

B TECH IN MECHANICAL ENGINEERING

TEACHING EXPERIENCE

L B S COLLEGE OF ENGINEERING

October 2004 to April 2005.

SREENARAYANAGURU COLLEGE OF ENGG. & TECHNOLOGY, PAYYANNUR

June 2005 to October 2007

L B S COLLEGE OF ENGINEERING

January 2008 to fill date

RESEARCH INTERESTS

Renewable Energy; Solar Energy; Solar Cooking; Multi-Criteria Decision Making; Biodiesel; Nanotechnology; Heat Transfer; Optimization Techniques.

Google Scholar: <https://scholar.google.com/citations?user=9RfayngAAAAJ&hl=en>

Researchgate: <https://www.researchgate.net/profile/Anilkumar-B-C>

ORCID: <https://orcid.org/0000-0003-0463-8071>

SCOPUS: <https://www.scopus.com/authid/detail.uri?authorId=57219563442>

Subjects Taught:

UG: Optimization Techniques and Applications; Quantitative Techniques for Engineers; Advanced Energy Engineering; Engineering Mechanics; Basic Mechanical Engineering; Engineering Graphics; Mechanics of Solids; Operations Research; Thermodynamics; Metrology and Instrumentation.

PG: Thermal Environmental Engineering; Design of Heat Transfer Equipment.

Achievements:

- **Second Rank** in the Kannur University BTech Degree Examinations (Mechanical Engineering) in the year 2004.
- Qualified **GATE** in the year 2007 & 2010.
- **Best Teacher Award** for the year 2015-16 in LBS College of Engineering Kasaragod.
- Participated and won the second place for the **best poster presentation** award for the paper titled 'Solar cooker with low cost sensible heat storage medium' in the Mahindra University Research Symposium (MURS 2020).

Membership in Professional bodies:

- **Life time membership** in REST SOCIETY FOR RESEARCH INTERNATIONAL from June 2021. [Membership No: LM: AA0216]

LIST OF JOURNALS:

- **B.C. Anilkumar**, R. Maniyeri, S. Anish, "Performance Prediction Model Development for Solar Box Cooker Using Computational and Machine Learning Techniques", *ASME Journal of Thermal Science and Engineering Applications*, Jul 2023, 15(7): 071011, <https://doi.org/10.1115/1.4062357>. (**SCI**)
- **B.C. Anilkumar**, R. Maniyeri, S. Anish, " Modified thermal energy storage unit for solar cookers using iterative design algorithm", *Materials Today: Proceedings*, 2022. <https://doi.org/10.1016/j.matpr.2021.12.579>. (**SCOPUS**)
- **B.C. Anilkumar**, R. Maniyeri, S. Anish, " Thermal performance assessment of a cylindrical box solar cooker fitted with decahedron outer reflector ", *Energy and Environment*, 2021. DOI: 10.1177/0958305X211070779. (**SSCI, SCOPUS**)
- **B.C. Anilkumar**, R. Maniyeri, S. Anish, " Optimum selection of phase change material for solar box cooker integrated with thermal energy storage unit using multi-criteria decision-making", *Journal of Energy Storage*, Vol. 40, pp. 102807, 2021. <https://doi.org/10.1016/j.est.2021>. (**SCI**)
- **B.C. Anilkumar**, R. Maniyeri, S. Anish, "Design, Fabrication and Performance Assessment of a Solar Cooker with Optimum Composition of Heat Storage

Materials", *Environmental Science and Pollution Research* (2021) 28: 63629-63637. <https://doi.org/10.1007/s11356-020-11024-3>. (SCI)

- C. Sreerag, P. Sachin, K.C. Shyamraj, P. Aswin, K. Akhil, P.C. Saishyam, **B.C. Anil Kumar**, An Experimental & Numerical Investigation of Heat Loss from Spherical Cavity Solar Receiver, *International Journal of Advance Research and Innovative Ideas in Education*, Volume 2, Issue 4, 2017.
- V.K. Nideep Nirmal and **B.C. Anilkumar**, Experimental Investigation into the effects of four-way catalytic converter on four stroke diesel engine emissions, *International Journal of Engineering Research & Technology*, Volume 4, Issue 10, October 2015, PP 402-406.
- K. Vipin and **B.C. Anilkumar**, Selection and Comparative Studies of working fluids for Organic Rankine Cycle(ORC), *International Journal of Engineering Research & Technology*, Volume 4, Issue 10, October 2015, PP 28-33.
- V.M. Jeevanlal and **B.C. Anilkumar**, Experimental Investigation of Heat Transfer from a Flat and Surface Indented Plate Impinged with Cold Air Jet Using Circular Nozzle, *International Journal of Emerging Engineering Research & Technology*, Volume 2, Issue 5, August 2014, PP 160-170.
- V.V. Rakesh, **B.C. Anilkumar** and Robins Aikkara, Investigation of Various Properties of Biodiesel from Waste Cooking Coconut and Palm Oil and Comparison with the Petroleum Diesel, *International Journal of Emerging Engineering Research & Technology*, Volume 2, Issue 7, October 2014, PP 36-42.

LIST OF BOOK CHAPTERS:

- **Anilkumar, B.C.**, Maniyeri, R., Anish, S. (2023). Performance Comparison of Different Geometries of Thermal Energy Storage Unit for Solar Cooker. In: Mehta, H.B., Rathod, M.K., Abiev, R., Arıcı, M. (eds) Recent Advances in Thermal Sciences and Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-19-7214-0_2. (SCOPUS)
- **B.C. Anilkumar**, Maniyeri R., Anish S. (2021) Numerical Investigation on the Effect of Various Geometries in a Solar Box-Type Cooker: A Comparative Study. In: Prabu T., Viswanathan P., Agrawal A., Banerjee J. (eds) Fluid Mechanics and Fluid Power. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-16-0698-4_9. (SCOPUS)

LIST OF CONFERENCES:

- **B C Anil Kumar**, R. Maniyeri, S, Anish, "Performance comparison of different geometries of thermal energy storage unit for solar cooker", *2nd National and 1st International conference on Fluid Flow and Thermal Sciences (ICAFFTS 2021)*, September 24-25, 2021, SVNIT Surat, Gujarat, India.
- **B C Anil Kumar**, R. Maniyeri, S, Anish, " Performance evaluation of solar cookers using multi-criteria decision-making methods", *International Conference on Advance*

in Mechanical Engineering: Transcending Boundaries (ICAMET 2021) July 22-23, 2021, Mangalam College of Engineering, Kottayam, Kerala, India.

- **B C Anil Kumar**, R. Maniyeri, S, Anish, "Development of a Computational Procedure for Designing Thermal Energy Storage Unit for Solar Box Cooker", 3rd *International Conference on Advances in Mechanical Engineering and Nanotechnology (ICAMEN-2021)*, March 18-19, 2021, Manipal University Jaipur and NIT Uttarakhand, India.
- **B C Anil Kumar**, R. Maniyeri, S, Anish, "Solar Cooker with Low Cost Sensible Heat Storage Medium", *Mahindra University Research Symposium (MURS-2020)*, November 26-27, 2020, Mahindra University, Hyderabad. Telangana, India.
- **B C Anil Kumar**, R. Maniyeri, S, Anish, "Design, fabrication and performance assessment of a solar cooker with optimum composition of heat storage materials", 5th *International Conference on Recent Advancements in Chemical, Energy and Environmental Engineering (RACEEE 2020)*, February 13-14, 2020, SSN College of Engineering, Chennai, India.
- **B C Anil Kumar**, R. Maniyeri, S, Anish, "Numerical Investigation on the Effect of Various Geometries in a Solar Box Type Cooker: A Comparative Study", 46th *National Conference on Fluid Mechanics and Fluid Power (FMFP)*, December 9-11, 2019, PSG College of Technology, Coimbatore, India.
- **B C Anil Kumar**, R. Maniyeri, S, Anish, "Experimental Investigation on the Effect of Decahedron Frustum Shaped Reflector on the Performance of a Cylindrical Box Type Solar Cooker", *International Conference on Sustainable Energy and Environment Challenges (SEEC-2019)*, November 27-29, 2019, CSIR-NEERI, Nagpur, India.
- **B C Anil Kumar** and V. Sajith, "Experimental investigation on the effect of catalytic nano particles on fuel properties and wear characteristics", *International Conference AMMMT-2013*, Siddaganga Institute of Technology, Tumkur.
- Presented a paper titled "Experimental investigation On the effect of low cost sensible thermal energy storage medium in a solar box-type cooker", in the *International Conference on Technology Convergence in Engineering, Energy and Sustainability* from 11th -12th July 2019 at Vimal Jyothi Engineering College Kannur, Kerala.
- Participated in the 8th *National Conference on Technological Trend* held at College of Engineering Trivandrum, Kerala.
- Participated at the "National Conference on Renewable Energy Systems and Engineering" on 7th and 8th November 2014 conducted at Vivekananda College of Engineering & Technology Puttur, Karnataka.
- Presented a paper titled "Design & experimental investigation of four-way catalytic converter", in the 2nd *National Conference on Technological Advancements in Engineering* from 17th -18th March 2016 at Sree Narayana Guru College of Engineering & Technology Payyanur, Kerala.
- Presented a paper titled "An Experimental& Numerical Investigation Of Heat Loss in a Spherical Cavity Solar Receiver" in the 3rd *National conference on Technological Advancements in Engineering* held at Sree Narayana Guru College of Engineering Engineer & Technology Payyannur on 25th March 2017.
- Presented a paper titled "An Experimental& Numerical Investigation Of Heat Loss in a Conical Cavity Solar Receiver" in the 3rd *National conference on Technological*

Advancements in Engineering held at Sree Narayana Guru College of Engineering Engineer & Technology Payyannur on 25th March 2017.

- Presented a paper titled “Experimental Analysis on Solar Panel Cooling using Heat Pipe” in the 4th *National Conference on Technological Advancements in Engineering* held at Sree Narayana Guru College of Engineering & Technology Payyannur on 16th-17th March 2018.
- Presented a paper titled” Design of Electromagnetic Reciprocating Engine” in the *National Conference on Recent Trends in Engineering & Technology* held at Government Polytechnic College, Kasaragod, Periyar from 1-03-2018 to 2-03-2018.

LIST OF FACULTY DEVELOPMENT/SHORT TERM PROGRAM:

- National Research Workshop on “***Preparing a review paper: The use of innovative tables, flowcharts and graphs***”, held on 6th November 2022, organized by Adonic Informatics through virtual mode.
- DST funded five-day online workshop on “***Advances in mechanical engineering for biomedical applications***” from 11-07-2022 to 15-07-2022 at National Institute of Technology Karnataka, Surathkal.
- One day workshop on “***Machine learning metamodels in design engineering***” held on 11th September 2021 organized by the department of Mechanical Engineering, Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science & Technology, Chennai, India.
- Five-day Faculty Development Program on “***An Insight to Engineering Fluid Dynamics and Its Applications in Industry***” sponsored by APJ Abdul Kalam Technological University, Kerala, from 26-07-2021 to 30-07-2021 at LBS College of Engineering Kasaragod, Kerala.
- AICTE-Training And Learning (ATAL) Academy online Elementary Faculty Development Program on “***Nature Inspired Optimization Techniques***” from 19-07-2021 to 23-07-2021 at National Institute of Technology Delhi.
- AICTE-Training And Learning (ATAL) Academy online Elementary Faculty Development Program on “***Modern Innovations and Development in Renewable Energy Technology***” from 12-07-2021 to 16-07-2021 at University of Lucknow.
- Successfully completed and Qualified Exam of One Week FDP on “***Recent trends in data Analysis in R***” (online mode) from 05-07-2021 to 10-07-2021 organized by REST Society for Research International (RSRI) Krishnagiri, Tamil Nadu, India.
- Five Day National Level Online Faculty Development Programme on “***Data Analysis and Artificial Intelligence for Mechanical Engineers***” held on 28-06-2021 to 02-07-2021 organized by Department of Mechanical Engineering, Nitte Meenakshi Institute of Technology, Bengaluru, Karnataka.
- Successfully completed and Qualified Exam of One Week FDP on “***Data Analysis in MS Excel***” (online mode) from 21-06-2021 to 25-06-2021 organized by REST Society for Research International (RSRI) Krishnagiri, Tamil Nadu, India.

- Three-day Faculty Development Program on “**Deep learning for image and video applications**” sponsored by APJ Abdul Kalam Technological University, Kerala, from 15-06-2021 to 17-06-2021 at LBS College of Engineering Kasaragod, Kerala.
- Successfully completed and Topped the Qualified Exam of One Week Workshop on “**Multi Criteria Decision making**” (online mode) from 19-04-2021 to 23-04-2021 organized by REST Society for Research International (RSRI) Krishnagiri, Tamil Nadu, India.
- Successfully completed and Qualified Exam of One Week “**Recent trends in Statistical analysis**” (online mode) from 29-03-2021 to 03-04-2021 organized by REST Society for Research International (RSRI), Krishnagiri, Tamil Nadu, India.
- AICTE-Training And Learning (ATAL) Academy online Faculty Development Programme on “**CFD**” from 4-01-2021 to 8-01-2021 at L B S College of Engineering, Kasaragod, Kerala.
- AICTE-Training And Learning (ATAL) Academy online Faculty Development Program on “**Green Technology & Sustainability Engineering**” from 8-12-2020 to 12-12-2020 at National Institute of Technology Raipur.
- One Week Faculty Development Program (FDP) on “**Recent advances in solar energy, optimization and its applications**” from 23rd to 27th of November 2020, organized by Department of Mechanical Engineering, Nitte Meenakshi Institute of Technology, Bangalore-64, Karnataka.
- AICTE-Training And Learning (ATAL) Academy online Faculty Development Programme on “**Block Chain**” from 2-11-2020 to 6-11-2020 at LBS College of Engineering Kasaragod, Kerala.
- Webinar on “**Role of glasses in energy and technology**” on 19th September 2020, by the PSG Care, Coimbatore, Tamilnadu.
- Online Faculty Development Program on “**Emerging Fields in Thermal Engineering**” Organized from 13th to 15th August 2020 by the Department of Mechanical Engineering Providence College of Engineering, Chengannur, Kerala.
- Webinar on “**Planning and Developing in-class Experiments for Fluid and Thermal Sciences**” on 24-June-2020, by the Department of Mechanical Engineering, LBS College of Engineering Kasaragod, Kerala.
- Online Short-Term Training Program on “**Research Methodology**” Organized from 28th to 30th May 2020 by the Department of Mechanical Engineering, Amal Jyothi College of Engineering Kanjirappally, Kottayam, Kerala.
- Online workshop on “**Scientific Writing for Journals**” organized by Springer Nature on 15th May 2020.
- Five-day Workshop on “**ADVANCED XRD THEORY, PRACTICAL AND TRAINING**” from 20-01-2020 to 24-01-2020 at National Institute of Technology Karnataka, Surathkal.
- TEQIP III sponsored Faculty Development Program on “**Fiber Reinforced Concrete and its Applications**” from 18-11-2019 to 22-11-2019 at National Institute of Technology Karnataka, Surathkal.

- TEQIP III sponsored Short term course on “**Modelling and Simulation of Micro and Macro Multiphase system**” from 08-01-2019 to 12-01-2019 at National Institute of Technology Karnataka, Surathkal.
- Successfully completed 8 Week (Jan-Mar 2019) Online Certification course in “**Matlab programming for numerical computation**” conducted by NPTEL 2019.
- DTE sponsored Faculty Development Program on “**Research Perspectives in Emerging Areas of Industrial Safety and Environmental Engineering**” from 3-12-2018 to 7-12-2018 at Govt. College of Engineering, Thrissur, Kerala.
- DTE sponsored STTP on “**Energy Conversion Technologies for Future Research Prospects**” from 25-06-2018 to 29-06-2018 at Govt. College of Engineering, Thrissur, Kerala.
- AICTE-Faculty Development Program on “**Research Methodology in Engineering & Technology**” from 21st October to 3rd November 2013 at College of Engineering Munnar, Kerala.
- Short-Term Training Program on “**Modelling & Analysis of Thermal Systems**” from 9th to 11th July 2012 at Government College of Engineering, Kannur, Kerala.
- AICTE-Faculty Development Program on “**Spotlight on Risk Management of Chemical Plants/Oil Refineries**” from 27th April to 9th May 2009 at Amal Jyothi College of Engineering, Kanjirappally, Kerala.
- Three-day workshop on “**ANSYS 10.0**” by Intercad Institute Pvt.Ltd at LBS College of Engineering Kasaragod on March 2009.
- Staff Development Program on “**Simulation Software and Loco Engineering**” from 27th to 28th March 2009 at LBS College of Engineering Kasaragod, Kerala.
- Short term course on “**Teaching Excellence and Methodologies**” organized by ISTE, Kerala section from 27-06-2005 to 02-07-2005 at Vidya Academy of Science & Technology, Thrissur, Kerala.
- **Induction Training Program** for the Faculty at LBS College of Engineering Kasaragod from 16th to 18th January 2008.
- Two-day Workshop on “**Matlab**” from 23rd to 24th February 2005 at LBS College of Engineering Kasaragod, Kerala.

LIST OF EXPERT TALK:

- Delivered an expert talk on “**Fundamentals of Engineering Mechanics**” on 8th & 10th February 2017 at College of Engineering Trikaripur, Kerala.
- Delivered an expert talk on "The art of writing research papers" in the Faculty development program at College of Engineering and Technology Payyanur on 31-05-2023.**

ADMINISTRATIVE WORKS:

- Admission coordinator, 2023-2024.
- Centre coordinator, online examinations.
- Deputy Warden, College Hostels, 2016-2019, LBSCE Kasaragod.
- Class Advisor, BTech Mechanical Engineering (2015-2019 Batch), from 2016 to 2019, LBSCE Kasaragod.

- Assistant Chief Superintendent of Examinations, Kannur University, 2014-2019, LBSCE Kasaragod.
- Chief Superintendent of Kerala PSC Examinations, 2017-2018, LBSCE Kasaragod.
- Convenor, orientation program for first year students and parents, 2015-2016 Batch, from 3-07-2015 to 5-07-2015 at LBSCE Kasaragod.
- Resident Tutor, Men's Hostel III, from 2014-2016, LBSCE Kasaragod.
- Secretary, Staff club for the period 2014-2015, LBSCE Kasaragod.
- Class Advisor, BTech Mechanical Engineering (2012-2016 Batch), from 2012 to 2016, LBSCE Kasaragod.
- Joint Secretary, PTA, 2008-2010.