



## Faculty Profile 2021-2022



1.	Name of the Faculty:	Dr. D. Karthickeyan
2.	Designation:	Assistant Professor
3.	Department:	Physics
4.	Date of Joining:	04-01-2021 (GCE, Srirangam)
5.	Faculty ID:	AICTE ID: <b>13546194852</b>
		ANNA UNIVERSITY ID: <b>6107040</b>
		ANNA UNIVERSITY RESEARCH SUPERVISOR: <b>3070045</b>
6.	E-Mail Address:	danajoti2008@gces.edu.in danajoti2008@gmail.com
7.	Date of Birth:	12-05-1986
8.	Qualification:	M.Sc, Ph.D.
9.	Specialization:	Nanomaterials, Nanogels, Microgels, Lasers, Holographic Optical Tweezers, Photocatalysis
10.	Professional Experience:	4 Years 2 Months
11.	Research Guidance:	One Ph.D Scholar (Pursuing)
12.	Awards and Honors:	1. UG Gold Medalist 2. PG University Gold Medalist

		3. CSIR – Junior Research Fellow, June 2012
13.	Sponsored Projects:	NIL
14.	Patents:	NIL
15.	Publications (Proof to be Enclosed – First page only)	
	(i) International Referred Journals:	11
	(ii) National Journals:	Nil
	(iii) International Conferences:	03
	(iv) National Conferences:	07
	(v) Books Published With ISBN Number/ISSN Number:	Nil
16.	Conferences/Workshops/Seminar/ Short Term Refresher Courses Attended (Proof to be Enclosed)	List Attached
17.	Conferences/Workshops/Seminars Organized	List Attached
18.	Other Contribution (If any)	

## LIST OF PUBLICATION

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### a. Peer-Reviewed Papers

1. Darlington Based 8T CNTFET SRAM cells with low power and Enhanced Write Stability  
M. Elangovan, D. Karthickeyan, M. Arulkumar, R. Ranjith, *Trans. Electr. Electron. Mater.: TEEM*, **20**, (2021)
2. Effect of temperature on green synthesized silver nanoparticles using water and methanol  
S. Parameswaran, D. Karthickeyan, T. Venugopal, *Mater. Today: Proc.*, **45**, 5506 (2021)
3. Unveiling the anticancer and antimicrobial potentials of bioengineered gold nanoparticles  
K. Govindaraju, R. Vasantharaja, K. S. Uma Suganya, S. Anbarasu, K. Revathy, A. Pugazhendhi, D. Karthickeyan, G. Singaravelu, *Process Biochem*, **96**, 213 (2020)
4. Nano-micronutrients Iron and Zinc: Green preparation, characterization, agromorphological characteristics and crop productivity studies in two crops  
Govindaraju Kasivelu, Tamilselvan Selvaraj, Kannan Malaichamy, D. Karthickeyan, Doron Shkolnik and Sumit Chaturvedi, *New J. Chem*, **44**, 11373 (2020)
5. Effect of Post-annealing on the Characteristics of ZincSulphide thin films formed by Chemical Bath deposition for Solar cell applications  
G. Hariharan, N. ShenbagaVinayagaMoorthi and D. Karthickeyan, *Journal of the Balkan Tribological Association*, **25**, 331 (2019)
6. Influence of Annealing Temperature on the Characteristics of Chemical Bath Deposited Zinc Sulphide Thin Films for Solar Cell Applications  
G. Hariharan, N. ShenbagaVinayagaMoorthi, D. Karthickeyan and S. Thanikaiarasan, *New J. New Mater. Electrochem. Syst.* **22**, 001 (2019)
7. Effect of Entanglements on Temperature Response of Gel-Immobilized Microgel Photonic Crystals  
R. G. Joshi, D. Karthickeyan, Deepak K. Gupta and B. V. R. Tata, *Colloids Surf. A.*, **558**, 600 (2018)
8. FCC-HCP Coexistence in Dense Thermo-responsive Microgel crystals  
D. Karthickeyan, R. G. Joshi and B. V. R. Tata, *J. Chem. Phys.*, **146**, 224503 (2017)

9. Identification of Volume Phase Transition of a Single Microgel Particle using Optical Tweezers  
D. Karthickeyan, Deepak K. Gupta and B. V. R. Tata, *J. Opt.*, **18**, 105401 (2016)
10. Temperature-driven volume phase transition of a single stimuli-responsive microgel particle using optical tweezers  
Deepak K. Gupta, D. Karthickeyan, B. V. R. Tata and T. R. Ravindran, *Colloid Polym. Sci.*, **294**, 1901(2016)
11. Yielding behaviour of dense microgel glasses  
R. G. Joshi, B. V. R. Tata and D. Karthickeyan, *AIP Conf. proc.* **1512**, 164 (2013)

#### **b. Published in conference proceedings**

12. Effect of Temperature on green synthesized silver nanoparticles using water and methanol  
S. Parameswaran, D. Karthickeyan and T. Venugopal, ICAMSE, 2020
13. Yielding behaviour of dense microgel glasses  
R. G. Joshi, B. V. R. Tata and D. Karthickeyan, *AIP Conf. proc.* **1512**, 164 (2013)

#### **c. Papers presented at national/international conferences**

1. Effect of UV-irradiation on the Lattice constant of Photonic Crystals of stimuli-responsive microgel particles  
D. Karthickeyan, B.V. R. Tata and R. G. Joshi, MRSI-AGM 2013, held at IGCAR, Kalpakkam Feb 11-13, 2013.
2. Effect of rate of cooling on the crystal structure of Thermo-responsive microgel colloidal crystals across melting  
D. Karthickeyan, B. V. R. Tata and R. G. Joshi, in XVIth National conference on surfactants, emulsions and biocolloids (NATCOSEB), Nov. 28-30, 2013 (oral).
3. Optical tweezers experiment on pH-responsive microgel particles  
D. Karthickeyan, Deepak K. Gupta and B. V. R. Tata, in NLS-23, S. V. University, Tirupathi, Dec. 3-6, 2014
4. FCC-HCP coexistence in thermoresponsive microgels crystals  
D. Karthickeyan, Deepak K. Gupta, R. G. Joshi and B. V. R. Tata, in Statistical physics of Soft matter, BHU, Varanasi, Nov. 26-30, 2015
5. Gel-immobilized stimuli-responsive Microgels Crystals

D. Karthickeyan, R. G. Joshi and B. V. R. Tata, in Complex Fluids, Indian Institute of Technology, Madras, Dec. 18-20, 2017

6. Influence of Annealing Temperature on the Characteristics of Chemical Bath Deposited Zinc Sulphide Thin Films for Solar Cell Applications  
G. Hariharan, N. ShenbagaVinayagaMoorthi and D. Karthickeyan, in International Conference on Newer Engineering Concepts and Technology – 2K18, K. Ramakrishnan College of Technology, Tiruchirappalli, Mar, 23-24, 2018
7. A Novel study on Particle Size and Band gap properties of silver nanoparticles prepared using green synthesis  
S. Parameswaran, D. Karthickeyan and T. Venugopal, in International Conference on Recent Innovation in Science, Engineering and Technology (ICRISET), Jeppiaar Institute of Technology, Chennai, July, 24-25, 2020
8. Effect of Temperature on synthesized silver nanoparticles  
S. Parameswaran, D. Karthickeyan and T. Venugopal, in Bannari Amman Institute of Technology, Sathyamangalam, Sep., 11-12, 2020
9. Effect of Temperature on synthesized silver nanoparticles  
S. Parameswaran, D. Karthickeyan and T. Venugopal, in Indo-UK international Virtual Conference on Advanced Nanomaterials for Energy and Environmental Applications (ICANEE-2020), Alagappa University, India and Brunel University, London, Sep., 16-18, 2020
10. Size estimation of metal nanoparticles using surface plasmon resonance peak position  
S. Parameswaran, D. Karthickeyan and T. Venugopal, AICTE sponsored National Level “Online Conference on Advances in Functionalized Materials” TPGIT, Vellore, Oct., 08-09, 2020

**List of programmes and conferences attended and organized in chronological order**

<b>S. No.</b>	<b>Name of the Programme</b>	<b>Nature of the Programme</b>	<b>Attended/ Organized</b>	<b>Venue</b>	<b>Period</b>
1.	AICTE-QIP sponsored two-week FDP on “Thin-film Deposition and Characterization (TFDC-2017)”	Two-week FDP	Attended	Alagappa Chettiar Government College of Engineering and Technology, Karaikudi	21-11-2017 to 04-12-2017
2.	CompFlu -2017	Conference	Attended	Indian Institute of Technology Madras	18-12-2017 to 20-12-2017
3.	International Conference on Newer Engineering Concepts & Technology – 2K18	Conference	Attended	K. Ramakrishnan College of Technology, Trichy	23-03-2018 to 24-03-2018
4.	TEQIP-III sponsored three days workshop on “Outcome Based Education and NBA	Workshop	Attended	GCE, Bargur	28-06-2018 to 30-06-2018

	Accreditation”				
5.	TEQIP-III sponsored “Three-week Induction Programme”	Student Induction Programme	Co-ordinated	GCE, Bargur	13-08-2018 to 02-09-2018
6.	AICTE-QIP sponsored one-week short term course on “Smart Multifunctional Materials for Sensors and Actuators”	One-week FDP	Attended	Thiagarajar College of Engineering, Madurai	07-03-2019 to 13-03-2019
7.	TEQIP-III sponsored “Students Excellence & Learning Programme”	Two-week SELP	Co-ordinated	GCE, Bargur	18-03-2019 to 30-03-2019
8.	AICTE sponsored one-week STTP on “Methodologies & Best Practices of Vibration Analysis in Automotive Industry”	One-week STTP	Attended	GCE, Bargur	13-06-2019 to 19-06-2019
9.	One-week Training programme on “NAAC for Quality and Excellence in Higher Education”	One-week Training programme	Attended	NITTTR Chennai in GCE, Bargur	24-06-2019 to 28-06-2019
10.	TEQIP-III sponsored one-week FDP on “Solar	One-week FDP	Attended	GCE, Bargur	10-07-2019 to 16-07-

	Photovoltaic System Design and Applications”				2019
11.	TEQIP-III sponsored Two-week FDP on “Synthesis and Characterization of Nanomaterials: Hands-on Training”	Two-week FDP	Attended	GCE, Bargur	19-08-2019 to 01-09-2019
12.	TEQIP-III sponsored Two-day SDP on “Professional Ethics and Stress Management”	Two-day SDP	Co-ordinated	GCE, Bargur	13-09-2019 to 14-09-2019
13.	Institution’s Innovation Council of MHRD’s innovation Cell, AICTE sponsored “Entrepreneurship Development Programme”	Two-day Training programme	Attended	RMK Engineering College, Chennai	08-01-2020 to 09-01-2020
14.	TEQIP-III sponsored Six-day STP on “Aptitude Training for Placement”	Six-day Student training programme	Co-ordinated	GCE, Bargur	27-01-2020 to 01-02-2020
15.	TEQIP online Certification on 2-Week online course on “Digital Transformation in Teaching Learning Process”	Two-week online course	Attended	Online mode IDP-ET, IIT Bombay	16-03-2020 to 30-03-2020



16.	TEQIP-III sponsored Two-day online FDP on “Design, Develop and Deliver online courses through MOODLE platform”	Two-day FDP	Attended	Online mode DoTE, SPIU, CIT, Coimbatore	23-04-2020 to 24-04-2020
17.	Six-day online International FDP on “Novel Materials for Energy and Biomedical Healthcare Applications”	Six-day FDP	Attended	Online mode M. Kumarasamy College of Engineering, Karur	11-05-2020 to 16-05-2020
18.	AICTE – ATAL sponsored online FDP on “Internet of Things (IoT)”	One-week FDP	Attended	Online mode NIT, Nagaland	18-05-2020 to 22-05-2020
19.	One-week FDP on “Advanced Materials Research”	One-week FDP	Attended	Online mode Bharat Institute of Engineering and Technology, Hyderabad	15-06-2020 to 19-06-2020
20.	One-week online Short-term course on “Implementation of OBE & Online Teaching”	One-week FDP	Attended	Online Mode NITTTR, Chennai	22-06-2020 to 26-06-2020
21.	Three-week Industrial Training on “Basic Science and Communication”	Three-week Industrial Training	Attended	Rajiv Gandhi Memorial Telecom Training Centre, BSNL, Meenambakkam Chennai	30-06-2020 to 20-07-2020

22.	International Conference on Recent Innovation in Science, Engineering and Technology (ICRISET)	Conference	Paper Presented	Jeppiaar Institute of Technology, Chennai	24-07-2020 to 25-07-2020
23.	One-month Faculty Induction Programme (FIP)	Faculty Induction Programme	Attended	Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi	01-08-2020 to 31-08-2020
24.	International web Conference on "Advanced Materials Science and Engineering (ICAMSE-2020)"	Conference	Paper Presented	Bannari Amman Institute of Technology, Sathyamangalam	11-09-2020 to 12-09-2020
25.	Indo-UK international Virtual Conference on Advanced Nanomaterials for Energy and Environmental Applications (ICANEE-2020)	Conference	Paper Presented	Alagappa University, India and Brunel University, London	16-09-2020 to 18-09-2020
26.	AICTE sponsored National Level "Online Conference on Advances in Functionalized Materials"	Conference	Paper Presented	TPGIT, Vellore	08-10-2020 to 09-10-2020

27.	AICTE sponsored Two-week online FDP on “ Advanced Physics for Engineers”	Two-week FDP	Attended	TPGIT, Vellore	04-11- 2020 to 17-11- 2020
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