

# JSS Mahavidyapeetha JSS Academy of Technical Education, Noida Department of Electronics & Communication Engineering.



#### **FACULTY PROFILE**

#### 1. PERSONAL DETAILS

NAME	Dr. ARUN KUMAR G	
DEPARTMENT	ELECTRONICS & COMMUNICATION ENGINEERING	(36)
DESIGNATION	PROFESSOR & HoD	
PHONE	8095382275	
EMAIL ID	arunkumarg@jssaten.ac.in	
Date of Joining (JSSATEN)	19-07-2018	a la Verife

#### 2. EXPERIENCE

Total Experience in Years: 16	Teaching: 16	Industry: NIL	Research: 06
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#### 3. QUALIFICATIONS

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COURSES	SPECIALIZATION	Year of Award	INSTITUTION	UNIVERSITY			
B.E.	Electronics and Communication Engineering	2004	STJIT, Ranebennur	VTU, Belagavi			
M.Tech.	Digital Communication & Networking	2007	UBDTCE, Davangere	Kuvempu University			
Ph.D.	Vibration Control	2016	VTU, Belagavi	VTU, Belagavi			
Post Doc.	-	-	-	-			

#### 4. RESEARCH & PUBLICATIONS

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Papers Published in Web of Science indexed	International: 03	National: 00				
Journals						
Papers Published in SCOPUS indexed	International: 14	National: 00				
Journals						
Papers Published in	International: 04	National: 00				
other Journals	international: 04	National: 00				
Papers Presented in						
Conferences /	International: 02	National: 00				
Symposium						

	Name of the book: "Emerging Trends in Engineering and
	Technology - ETET 2020"
	Name of the book Chapter: "Fast output sampling feedback
	control of multi-sensing & actuating systems"
	Publisher: Magnum Book Publishers, New Delhi (ISBN: 978-
	81-945125-7-8)
	Year of Publication: 2020
	Name of the book: "Recent Developments in Computing,
	Electronics and Mechanical Sciences"
	Name of the book Chapter: "Efficient Control Algorithms for
	Vibration Suppression of Different Types of Structures
	Using Multiple Sensing Techniques"
	Publisher: Anvi Book Publishers, New Delhi (ISBN: 978-81-
Books / Book chapters	941-281-9-9)
Published	Year of Publication: 2020
i ubiisiicu	[1]. <b>Dr. Arun Kumar G,</b> Dr. Sangeeta Mangesh K,
	"Fundamentals of Electronics Engineering", ISBN: 978-
	93-5777-766-7.
	[2]. Dr. Arun Kumar G, Dr. Sangeeta Mangesh K, "Integrated
	Circuits", ISBN: 978-93-5773-791-3
	[3]. <b>Dr. Arun Kumar G,</b> Dr. Siddesh G K, Mr Ali. I. K, Dr.
	Nirmalkumar S. Benni, Dr. T.C. Manjunath, "Analog
	Communication", Gouthami Publications, Shivamoga,
	ISBN: 978-93-5737-111-7.
	[4]. <b>Dr. Arun Kumar G</b> , Dr. Nagaraja B G, Dr. Spoorti J Jainar,
	Dr. Purohit Shrinivasacharya, "8051 Microcontroller" (As
	Per VTU CBCS Scheme-2018), Gouthami Publications,
	Shivamoga, 2020, <b>ISBN: 9789354199073.</b>

### 5. RESEARCH GUIDANCE

PhD Guide? Give field & University	Yes	University: Visvesvaraya Technological University, Belagavi,
PhDs / Projects Guided	Ph.D. Awarded: <b>02</b> Guiding: <b>01</b>	Projects at Master's Level: 10 Projects at Bachelor's Level: 30

#### 6. GRANTS

#### i. FUNDS RECEIVED (PROJECTS)

Project Name	Grant Amount	Date of receiving the Grant	Duration	Grant issuing authority/ Body / Organization
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#### ii. PATENTS

	AILNIS			
Sl. No.	Title	Application Number	Filing date	Publication date
1	A System for Field Monitoring and Data Collection Implemented as a Precision Agriculture tool and Method Thereof	202211067179 A	22/11/2022	02/12/2022
2	Real Time Implementation of Face Mask Detection and Alert System	202241026822 A	13/05/2022	13/05/2022
3	Cognitively Controlling Utilization of Electricity as Per Contextual Preferences of a User	202211020488 A	05/04/2022	15/04/2022
4	System and method for vibration suppression of different types of structures using multiple sensing techniques using control algorithms	202111021980 A	5/16/2021	6/4/2021
5	Gaze Controlled Electric Iron Box	202041046240 A	27-08-2020	23/10/2020 (First Examination Report has been filed at patent office)
6	Predicting Trading Algorithm Performance	202041048957	10-11-2020	-
7	IoT Apparatus for Detecting Quality and Shelf Life of Processed Sea Food	201941005285A	11/02/2019	Granted in 2023
8	IoT Device for Detecting Naturally Ripen and Chemically Ripen Fruits	201841031559 A	23/08/2018	31/08/2018 (First Examination Report has been filed at patent office)

#### iii. CONSULTANCY

Title of the work	Amount in Rs.	Date of receiving the Grant	Duration	Grant issuing authority/ Body / Organization
		Nil		

#### 7. AWARDS RECEIVED

Awards	Nil
"Best Paper Award"	INII

#### 8. PUBLICATIONS

## i. INTERNATIONAL JOURNALS

Sl. No	Title of the paper	Name(s) of Author(s)	Name of the Journal	Volume No. Issue No. Year	WOS / Scopus / Both	Impact Factor	Publisher
1	"IOT based Smart- Portable Intensive Care Unit for Patient in Medical Emergency/Critical Conditions"	Surya Narayan Panda, <b>G. Arun</b> <b>Kumar</b> , Antony Judice, Sanjeev Verma	NeuroQuantology	Volume 20, Issue-8, Page 4904-4912, August 2022.	SCOPUS	-	-
2	"Development of a novel blind man's stick for disabled persons using inbuilt micro- controller"	Dr. Arun Kumar G., Dr. Spoorti J. Jainar, Shantanu Singh, Shipra Mishra, Vishesh Rai, Dr. T.C. Manjunath	Journal of Gedrag& Organisatie (Netherlands)	Vol. 33, Issue 4, 2020	wos	-	Thomson Reuters
3	"An overview of nano-robots for curing different types of diseases in the field of medical applications"	Dr. Arun Kumar G, Ms. Spoorti J. Jainar, Dr. Nagaraja B.G. & Dr. T.C.Manjunath	Gedrag& amp; Organisatie (Netherlands)	Vol. 33, Issue 3, 2020	wos	-	Thomson Reuters
4	Use of Smart Intelligent Sensor & Actuator Mechanical Materials (PVDF / PZT) in developing MIMO mathematical model of the smart structure and its use to control the active vibrations using discrete sliding mode control theory with output samples	Satvik M. Kusagur, <b>Dr.</b> <b>Arun Kumar</b> <b>G</b> ., Dr. T.C.Manjunath	Journal of Materials Today	Vol. 37, Part 2, 2021, Pages 1592-1602, 11 Aug. 2020.	SCOPUS	-	Elsevier
5	Multivariable Modelling of Intelligent Flexible Mechanical Structures using Smart Materials with FEM, Euler- Bernoulli beam theory, State Space & Multi-Sensor Data Fusion Techniques	Satvik M. Kusagur, <b>Dr.</b> <b>Arun Kumar</b> <b>G</b> ., Dr. T.C.Manjunath	Journal of Materials Today	Vol. 37, Part 2, 2021, Pages 354-362, 7 June 2020.	SCOPUS	-	Elsevier
6	Development of	Satvik M.	Journal of	Vol. 37, Part	SCOPUS	-	Elsevier

	Mathematical Model for Smart Intelligent Flexible Structures using Smart Intelligent Sensor &Actuator Materials using Timoshenko Beam theory & its control using POF	Kusagur, <b>Dr. Arun Kumar G</b> ., Dr. T.C.Manjunath	Materials Today	2, 2021, Pages 648-655, 21 June 2020			
7	Modelling of smart intelligent materials with PZT & PVDF sensors / actuators to control the active vibrations of flexible aluminum mechanical cantilever beams using Proportional Integral Derivative (PID) techniques	Satvik M. Kusagur, <b>Dr.</b> <b>Arun Kumar</b> <b>G</b> ., Dr. T.C.Manjunath	Journal of Materials Today	Vol. 37, Part 2, 2021, Pages 2075-2082, 26 August 2020	SCOPUS	·	Elsevier
8	"Recent Advances in the Design & Development of A Drone Used for Bio-Medical Engineering Applications: Medi- Sky"	DakkaObulesu, <b>Arun Kumar</b> <b>G</b> , B.P. Mishra, Spoorthi J, T.C.Manjunath	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Vol8, Issue-9, 2019	SCOPUS	-	-
9	"4-Point Minimal Pick & Place Trajectory Design in Robotics"	Satvik M. Kusagur, <b>Arun</b> <b>Kumar G</b> , SpoorthiJainar, T.C.Manjunath, Pavithra G	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Vol8, Issue-9, 2019	SCOPUS	-	-
10	Design of Controllers Using Periodic Output Feedback – POF for 1 & 2-Link FMs	Joshi Shubangi Milind, <b>Arun</b> <b>Kumar G</b> , T.C.Manjunath	Journal of Advanced Research in Dynamical & Control Systems	Vol11, Special Issue- 7, 2019, Pages: 1605- 1617	SCOPUS		Elsevier
11	Design of Controllers Using Periodic Output Feedback – POF for 1 & 2-Link FMs	Joshi Shubangi Milind, <b>Arun</b> <b>Kumar G</b> , T.C. Manjunath	Journal of Advanced Research in Dynamical & Control Systems	Vol11, Special Issue- 7, 2019	SCOPUS	ı	Elsevier
12	"Bearing fault diagnosis in IM using perk's vector approach and J-48 based on vibration signal"	Arun Kumar K.M, <b>Dr. Arun</b> <b>Kumar G</b> , Dr. T.C. Manjunath	Journal of Advanced Research in Dynamical and Control Systems	Vol10, 12- Special Issue, 2018	SCOPUS	-	Elsevier
13	"Stator Winding Fault Diagnosis of IM by Park's Vector Approach and RF based on vibration signal"	Arun Kumar K.M, <b>Dr. Arun</b> <b>Kumar G</b> , Dr. T.C. Manjunath	Journal of Advanced Research in Dynamical and Control Systems	Vol10, 12- Special Issue, 2018	SCOPUS	-	-
14	Design of Controllers using Discrete Sliding Mode Control for 1 & 2-link FMs with	Joshi Shubhangi Milind, <b>Dr.</b> <b>Arun Kumar</b> <b>G</b> , Dr.	International Journal of Recent Technology and Engineering (TM) Exploring	Vol8 Issue- 2S6, August 2019, Page No.: 472 - 481.	SCOPUS	-	-

	output samples	T.C.Manjunath	Innovations,				
15	Design & development of flexible robotic manipulators	Joshi Shubhangi Milind, Dr. T.C.Manjunath, <b>Dr. Arun</b> <b>Kumar G</b>	International Journal of Management, Technology & Engineering	Vol. 9, Issue 6, pp. 777-783, Jun. 2019.	-	-	-
16	PID Control of smart flexible robotic manipulators using set-points	Joshi Shubhangi Milind, <b>Dr.</b> <b>Arun Kumar</b> <b>G</b> , Dr. T.C.Manjunath	Journal of Science, Technology and Development	Vol. 8, Issue 12, Page No.: 878 - 881, Dec. 2019	SCOPUS	-	-
17	Double link (2- link) flexible robotic manipulator (2- DOF) control using proportional – integral – derivative concepts in the work space	Joshi Shubhangi Milind, <b>Dr.</b> <b>Arun Kumar</b> <b>G</b> , Dr. T.C.Manjunath	The International Journal of Analytical & Experimental Modal Analysis	Vol12, Issue- 12,DECEMBER 2019, Page No.: 1364- 1367	-	-	-
18	Single link (1-link) flexible robotic manipulator (1- DOF) control using proportional - integral - derivative concepts in the work space	Joshi Shubhangi Milind, <b>Dr.</b> <b>Arun Kumar</b> <b>G</b> , Dr. T.C.Manjunath	A Journal of Composition Theory	Vol12, Issue- 12, Page No.: 1364-1367, Dec. 2019	-	-	-
19	Different control strategies to control one and two link flexible robotic manipulators for aerospace applications	Shubhangi Milind Joshi, <b>Dr. Arun</b> <b>Kumar G.</b> , Dr. T.C.Manjunath	Journal of Interdisciplinary Cycle Research	Vol.11, Issue 12,Page No.:1956- 1962, December- 2019.	-	-	-
20	Control of n-link flexible robotic manipulators in 3D Euclidean space using PID, POF, FOS & DSMC strategies	Joshi Shubhangi Milind, <b>Dr.</b> <b>Arun Kumar</b> <b>G</b> ., Dr. T.C.Manjunath,	International Journal of Grid and Distributed Computing	Vol.12, Issue 3, Page No.: 199-226, October 2019	SCOPUS	-	-
21	Design of Controllers using Fast Output Sampling Feedback -FOS for 1 & 2-link FMs	Joshi Shubhangi Milind, <b>Dr.</b> <b>Arun Kumar</b> <b>G</b> ., Dr. T.C.Manjunath	Journal of Advanced Science and Technology	Vol. 28, Issue 7, Page No.: 124-135	SCOPUS	-	Elsevier

### ii. NATIONAL JOURNALS

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Journal	Volume No. Issue No. Year	WOS / Scopus	Impact Factor	Publisher
-	-	-	-	-	-	-	-

#### iii. CONFERENCES

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Conference	Volume No. Issue No. Year	WOS / Scopus	Impact Factor	Publisher
1	Hybrid control strategies for vibration suppression of aerospace structures	Satvik M. Kusagur, <b>Dr. Arun</b> <b>Kumar G</b> ., Dr. T.C.Manjunath	Recent Trends in Electrical, Electronics, Telecommunications, Instrumentation, Medical Electronics Engg. & Physics	Volume 1, 2020	-	-	-
2	Efficient control algorithms for vibration suppression of different types of structures using multiple sensing techniques – A broad overview	Satvik M. Kusagur, <b>Dr. Arun</b> <b>Kumar G</b> ., Dr. T.C.Manjunath	Intelligent Control and Computation for Smart Energy and Mechatronic Systems	Volume 1, 2020	-		•

iv. WORKSHOPS / CONFERENCES ATTENDED

Sl. No.	Name of the workshop / Conference	Organizer	Date
1	National Conference (NCESEMS -21) at JSSATEN	JSSATEN	23 Sept. 2021
2	International Conference (ICCESEMS-20) at JSSATEN	JSSATEN	25-25 Sept 2020

v. WORKSHOPS / CONFERENCE (ORGANIZED)

Sl. No.	Name of the workshop / Conference	Organized by	Date	Role
1	Hands-on Session on "AI"	In collaboration with EDUNET foundation (Sponsored by Microsoft and SAP Labs)	21 - 23 Dec - 2022	Coordinator
2	"Cyber Crime and Forensic Tools"	In collaboration with NITTTR Chandigarh	23-27 May - 2022	Coordinator
3	"Cryptography for Information Security"	In collaboration with NITTTR Chandigarh	9-13 May - 2022	Coordinator

## vi. CONFERENCE ATTENDED (THOSE SPONSORED BY AICTE / ISTE/IETE/TEQIP OR ANY OTHER SPONSORING BODY)

Sl. No. Name of the workshop / Conference		Organizer	Date
1	FDP on PYTHON	JSSATE Noida in Collaboration with Spoken Tutorial Project, IIT Bombay.	22-05-2020 to 05-06- 2020

#### 9. DETAILS OF NPTEL / COURSERA COURSES COMPLETED

Sl. No	Name of the subject	Organized by	Date of completion / Award	Grade / Marks
-	-	-	-	-

#### 10. MEMBERSHIP OF PROFESSIONAL BODIES:

- 1. The Indian Society for Technical Education (MISTE 57660)
- 2. The Institute of Electronics & Telecommunication Engineers (IETE 232607)
- 3. Member of International Associations of Engineers (IAENG 124743)
- 4. International Association of Computer Science & Information Technology (IACSIT 80345338)

## 11. Any other information you will like to share about your professional experience