# **MANDATORY DISCLOSURE**

(Recognized by Govt. of Odisha, Approved by All India Council of Technical Education, New Delhi, Affiliated to Biu Pattnaik University of Technology, Rourkela, Odisha)





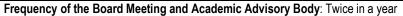
# MAHAVIR INSTITUTE OF ENGINEERING AND TECHNOLOGY (259)

Phone :0674-2556582, 2551502

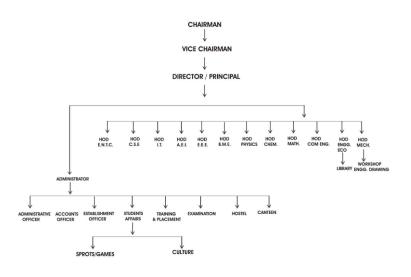
Mail: info@miet.edu.in, web: www.miet.edu.in

#### MANDATORY DISCLOSURE Updated on: Jun 7th, 2024

	1	on: 、	Jun 7 <sup>th</sup> , 2024	•								
Ald	CTE File No	F.No. Eastern/1-43665015728/2024/EOAE	OA, Date of Apr	proval: 23-Mar-2024								
Da	te/Period of											
las	t approval		· · · · · · · · · · · · · · · · · · ·									
1	Name of the institution	MAHAVIR INSTITUTE OF ENGINEERING AND TECHNOLOGY  (Affiliated to Biju Pattnaik University of Technology, Rourkela, Odisha. Recognized by Government of Odisha & Approved by AICTE, New Delhi)  Mahavir Nagar, Paniora, Palashpur, Paniora, Khurda, Odisha, India  Mobile: 9938632487  Email: info@miet.edu.in  URL: http://miet.edu.in										
2	Name and	Nabajuga Educational and Char	itable Trust									
	address of the Trust	Address: Nabajuga Educational and Char Mobile: 9439000777 Email: chairman@miet.edu.in URL: http://miet.edu.in/	Address: Nabajuga Educational and Charitable Trust Mobile: 9439000777 Email: chairman@miet.edu.in									
3	Name and Address of the Principal/ Director	Prof. Dr. Asit Mohanty Principal MAHAVIR INSTITUTE OF ENGINEERING (Affiliated to Biju Pattnaik University of Te Government of Odisha & Approved by AIG Mahavir Nagar, Paniora, Palashpur, Panio Mobile: 9437920530 Email: principal@miet.edu.in URL: http://miet.edu.in/	chnology, Rourl CTE, New Delhi	kela, Odisha. Recognized by )								
4	Name of the affiliating University	Biju Pattnaik University of Tech		kela, Odisha - 500007, Telangana								
		Members of the Board and their brief ba	ackground									
		Name	Designation	Background								
			Chairman	Educationist								
			Secretary	Educationist								
			Vice-Chairman									
			Trustee	Educationist								
		Mrs. S. Bhanja	Trustee	Educationist								
		Mrs. M. Mohanty	Trustee	Educationist								
		Members of Academic Advisory Body										
		Name		Designation								
5	Governance	Dr. Gandharba Chandra Nayak	Chairman, MIET	<u> </u>								
ľ	Covernance	Dr. Basanta Manjari Nayak										
		Dr. Bikram Kumar Pradhan	Secretary, MIET, Bhubaneswar  Vice-Chairman, MIET, Bhubaneswar									
		Dr. Asit. Mohanty	Principal, MIET, Bhubaneswar									
		Dr. Birajendu Prasad Samal		MIET, Bhubaneswar								
		Dr. Ratikanta Mishra	Member									
		Dr. Antaram Panda	Member									
		Prof D.P.Bagartht, O.U.T.R, Electrical	Member									
		Prof. Ashok Mohanty, O.U.T.R, Mechanical	Member									
		Prof. Gayadhara Panda, NITTR, Kolkata	Member									
	i	Prof. T. K. Panigrahi, PMEC, Berhampur	Member									
		Prof. 1. K. Panigrani, Pivico, Bernanipui	Member									



#### Organizational chart and processes



# Nature and Extent of involvement of Faculty and students in academic affairs/ improvements

Available in the respective Departments/Programmes on the following websites

URL: https://miet.edu.in/

#### Mechanism/ Norms and Procedure for democratic/ good Governance

Available in the respective Departments/Programmes on the following

websites URL: https://miet.edu.in/

#### Student Feedback on Institutional Governance/ Faculty performance

Available in the respective Departments/Programmes on the following

websites

URL: https://miet.edu.in/aicte-essential.php

#### Grievance Redressal mechanism for Faculty, staff and students

Establishment of Anti Ragging Committee https://miet.edu.in/aicte-essential.php

Establishment of Online Grievance Redressal Mechanism <a href="https://miet.edu.in/aicte-essential.php">https://miet.edu.in/aicte-essential.php</a>

#### **Establishment of Internal Complaint Committee (ICC)**

Available in the respective Departments/Programmes on the

following websites URL: <a href="https://miet.edu.in/aicte-essential.php">https://miet.edu.in/aicte-essential.php</a>

#### Establishment of Committee for SC/ ST URL:

#### **Internal Quality Assurance Cell**

Available in the respective Departments/Programmes on the

following websites URL: <a href="https://miet.edu.in/aicte-essential.php">https://miet.edu.in/aicte-essential.php</a>

# Name of Programmes approved by AICTE

Programme/Course	Approved Intake (2024-2025)
UG -Engineering	
B.TechE.T.C.	120
B.TechCSE	67
B.TechE.E.E.	75
B.Tech A.E.I	30
B.Tech I.T.	30
B.TechB.M.E.	22
B.TechCivil	45
B.TechMechanical	45
PG –Engineering	
M.TechE.T.C.	13
M.TechP.S.E.	13
M.TechC.S.E.	13
M.TechC.E.	07
PG-MCA	45
PG –MBA	45

# 6 Programmes

	NBA Accreditation	on Status						
1.	Programme / Course Accredited	Eligible – Application under process						
	NAAC Accreditation Status							
1.	Accredited	Eligible – Application under process						

# For each Programme the following details are to be given:

			Cut off I	ank (last -	·3Y)		Campus
Programme / Course	No. of Seats	Duration	2023- 2024	2022- 2023	2021- 2022	Fee 2024-25	placement (last-3Y with max / min salary in Lakhs)
UG –Engineering							
B.TechE.T.C.	120	4 years				Rs.68,000	06 (4, 2)
B.TechC.S.E.	67	4 years				Rs.68,000	17(12, 2)
B.TechE.E.E.	75	4 years				Rs.68,000	30 (5, 2)
B.TechA.E.I	30	4 years				Rs.68,000	37 (5, 2)
B.TechI.T.	30	4 years				Rs.68,000	17 (5, 2)
B.TechB.M.E.	22	4 years				Rs.68,000	06 (4, 2)
B.TechCivil	45	4 years				Rs.68,000	05 (4, 2)
B.TechMechanical	45	4 years				Rs.68,000	05 (5, 2)
PG –Engineering							
M.TechE.T.C.	13	2 years				Rs.75,000	05 (4, 2)
M.TechP.S.E.	13	2 years				Rs.75,000	08 (4, 2)
M.TechC.S.E.	13	2 years				Rs.75,000	03 (4, 2)
M.TechC.E.	07	2 years				Rs.75,000	10 (7, 3)
PG-MCA	45	2 years				Rs.68.000	14 (3, 2)
PG -MBA	45	2 years				Rs.75,000	47 (5, 2)

		Programme/Co	ourse Web link
		UG/PG -Engineering	
		E.T.C	https://miet.edu.in/faculty.php
		C.S.E.	https://miet.edu.in/faculty.php
		E.E.E.	https://miet.edu.in/faculty.php
7	Faculty	A.E.I	https://miet.edu.in/faculty.php
7	Faculty	I.T.	https://miet.edu.in/faculty.php
		B.M.E.	https://miet.edu.in/faculty.php
		Civil Engineering	https://miet.edu.in/faculty.php
		Mechanical Engineering	
		M.B.A.	https://miet.edu.in/faculty.php
		MCA	https://miet.edu.in/faculty.php
	Profile of the Principal /Director	(Affiliated to Biju Pattnaik Odisha & Approved by Al Email: principal@miet.ed URL: http://miet.edu.in/	
		Programme/Course	Web link
8		UG/PG –Engineering Civil Engineering	https://miet.edu.in/faculty.php
			https://miet.edu.in/faculty.php
			https://miet.edu.in/faculty.php
			https://miet.edu.in/faculty.php
		I I CCL	
	Profile of the		
	Profile of the	IT	https://miet.edu.in/faculty.php
	Profile of the Faculty	IT EEE	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php
		IT EEE B.M.E.	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php
		IT EEE B.M.E. A.E.I	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php
		IT EEE B.M.E. A.E.I PG-MCA	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php
		IT EEE B.M.E. A.E.I PG-MCA	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php
9		IT EEE B.M.E. A.E.I PG-MCA PG -MBA	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php
9	Faculty	IT EEE B.M.E. A.E.I PG-MCA PG -MBA  Programme UG-Engineering	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php  Fee fixed by TAFRC for the block period (2022-2025) Rs. 68,000 per annum
9	Faculty	IT EEE B.M.E. A.E.I PG-MCA PG -MBA  Programme UG-Engineering PG -Engineering	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php  Fee fixed by TAFRC for the block period (2022-2025)  Rs. 68,000 per annum Rs. 75,000 per annum
9	Faculty	Programme UG-Engineering PG -MCA PG -MCA	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php  Fee fixed by TAFRC for the block period (2022-2025)  Rs. 68,000 per annum  Rs. 75,000 per annum  Rs. 68,000 per annum
9	Faculty	IT EEE B.M.E. A.E.I PG-MCA PG -MBA  Programme UG-Engineering PG -Engineering	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php  Fee fixed by TAFRC for the block period (2022-2025)  Rs. 68,000 per annum Rs. 75,000 per annum
9	Faculty	Programme UG-Engineering PG -MCA PG -MCA	https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php https://miet.edu.in/faculty.php  Fee fixed by TAFRC for the block period (2022-2025)  Rs. 68,000 per annum  Rs. 75,000 per annum  Rs. 68,000 per annum

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		Programme/Course				AY		\Y <sub>1</sub>		CAY <sub>2</sub> (2021-22)		\Y <sub>3</sub>
					S (2023	3-2024) A	(2022 S	A	(202) S	A	(2020 S	A
			IIG Engineer	rina	3	A	3	A	3	A	3	Α
			UG-Engineering E.T.C.		120	108	120	106	120	92	120	93
			C.S.E.		67	53	67	53	67	57	67	65
			E.E.E.		75	63	75	64	75	65	75	55
			A.E.I.		30	28	30	25	30	25	30	24
			IT		30	27	30	27	30	25	30	28
			B.M.E.		22	20	22	20	22	18	22	19
10	Admission		Civil Engineering		45	43	45	42	45	45	45	26
10	Aumssion		Mechanical Engine	erina	45	40	45	39	45	45	45	35
			PG-Engineer		1 40	40	70	00	10	10	10	00
			E.T.C	9	13	09	13	10	13	11	13	13
			P.S.E.		13	12	13	12	13	11	13	13
			CSE		13	11	13	11	13	10	13	13
			C.E.		07	06	07	05	07	06	07	05
			PG-MCA		45	42	45	41	45	45	45	45
			PG –MBA		45	42	45	44	45	45	45	45
			1 O WIB/Y		10	72	40		70	70	70	70
					570	504	570	499	570	500	570	479
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			Programme	(% on app						U	ΚL	
			110 5 : :	State OJE		ımt.		-Conven			:- :/	
			UG-Engineering	70%	30%		OJEE			ttps://oje		
11	Admission		PG –Engineering	70%	30%		OJEE			ttps://ojee		
"	Procedure		PG –MCA PG –MBA	70% 70%	30%		OJEE			ttps://oje		
			PG -IVIBA	10%	307	0	OJEE	-	n'	ttps://ojee	e.nic.in/	
10		of the pro	r for admission aga ogramme, Govt. of O r for admission again:	disha						•		ener(s)
12	Criteria and Weightage for Admission	OJEE, G	Govt. of Odisha									
13	List of Applicants	As per th	As per the admission guidelines and admission schedule provided by OJEE, Govt. of Odisha									
14	Results of Admission Under Management seats/Vacant		er the admission guidelines and admission schedule provided by OJEE, Govt. of Odi									

#### Infrastructure No. of Rooms Programme Computer Central Class Tutorial Lab Drawing Center Exam Information **UG-Engineering** 24 01 01 01 08 of 59 PG –Engineering 03 01 Infrastructure 15 PG -MCA 02 01 02 01 01 and Other PG -MBA 02 01 01 01 01 Resources Min-Unit Area (m²) 80 m<sup>2</sup> 60 m<sup>2</sup> 150 m<sup>2</sup> 150 m<sup>2</sup> 330 m<sup>2</sup> 360 m<sup>2</sup> Available Barrier Free Built Environment for disabled and elderly persons: Available Occupancy Certificate: Available Fire and Safety Certificate: Available Hostel Facilities: Available Library **Journals** Volume Journals Titles Programme / Course subscribed Internationa UG/PG -Engineering B.Tech., M.Tech. 5848 39339 55 61 Adequate prescribed number of National and International Journals 09 PG-MCA 1565 2830 15 are subscribed to cater the need for academic and research purpose for 2360 12 PG-MBA 1630 17 all the Programme/Courses 7413 44529 76 **TOTAL** 93 **Laboratory and Workshop** Programme/Course **Major Equipment** UG/PG -Engineering CTM,UTM,TL,STN,MAR,STAB,SHEAR,STADD,AUTOCAD Civil Mech ICENG, PUMPTUR, HTCOM, LATHE, FITTINGS, TIN SMITHY **ETC** CRO, FUNCGEN, UP UC KITS, UWBENCHES IBMXSERIES 226 SERVERS, HP SCANNER, LASER **CSE** PRINTER, CPLD, VS, RIDE, UMPS, XLINX, MSDN, OS WIN32, ALNG 13, 15, MC&INT KITS, KRYKARDS, UPS, SCOPENSERVER, REDHAT ΙT LINUX, RATROSE, ORACLE RECTIFIER UNIT, OSCILLISCOPES, DECADE RESISTANCE EEE BONES, RELAY TEST KIT TOOL BOX, SIMULINK CONTROL SY EIE FCT,MCP,PCTRAIN,CVC,PCT,PLC **BME** PHYSIOGRAPH, EEC SIMULATOR, EMG AMPLIFIER, PC, 12 CANNEL SIMULATANEAS, LCRQ METER, MEASURE SOFTWARE ETC. PG-MCA SER, COMP, PRINT, STAB, UPS. PG -MBA Computers, Printers, Scanner, LCDs

List of Experimental Setup in each Laboratory/ Workshop:

As per B.P.U.T., Odisha approved scheme and syllabus URL: www.bput.ac.in

6|Page

Programme	Internet Bandwidth	Number and configuration of System	Number of system connected by LAN/WAN	Major software packages
UG/PG–Engineering PG –MCA PG –MBA	500 Mbps JIO fiber	310	310	Auto-CAD-2010 Auto-CAD LDDT Rel 2i Auto-CAD Map-2008 STADD – Pro 2001 3-D Studio Viz Rel 3i NASTRAN MATLab I CAP/4 Windows 8.71 (P SPICE) Active HDL 4.1Mat Lab 5.1 Mat Lab 7.12 Xilinx HDL Cadence, Mentor Graphics MATLAB CONTROL SYSTEM TOOL BOX DIGITAL SIGNAL TOOL BOX Ansys 15 Solid Works PTC Creo 2.0 Iron CAD 2012 CATIA V 5 R11 Auto CAD 2000 Gibbs CAM CNC offline milling CNC Turning CNC Train Mill 8 Turn Work space Simulation Iron CAD 3.2 Ansys 5.7 Solid Works Education Version Microsoft VISIO, etc

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List of facilities available
Games and Sports Facilities: Available
Extra-Curricular Activities: Available
Soft Skill Development Facilities: Available
Teaching Learning Process
Curricula and syllabus for each of the Programmes as approved by the University
Academic Calendar of the University:
Available on the below website
URL: http://www.bput.ac.in
Academic Time Table with the name of the Faculty members handling the Course
Teaching Load of each Faculty: Available in the respective Departments/Programmes
Internal Continuous Evaluation System and place
Student's assessment of Faculty, System in place:
Available in the respective Departments/Programmes on the following websites URL:
https://miet.edu.in/
URL: https://miet.edu.in/
For each Post Graduate Courses give the following:
Title of the Course
Curricula and Syllabi
Available on the below website
URL: http://www.bput.ac.in
Laboratory facilities exclusive to the Post Graduate Course
Available in the respective Departments/Programmes on the following websites

		UKL	: http://www.miet.edu.in/						
			Programme/Cou	'se	CAY	CAY <sub>1</sub>			
			IIO Engliseaving		(2022-2023)	(2021-2022)	(2020-2021)	(2019-2020)	
			UG-Engineering		42	45	26	40	
			Civil Engineering  Mechanical Engineer	ina	39	45	35	41	
			E.T.C.	ıı ıg	106	92	93	65	
			C.S.E.		53	57	65	45	
	Enrollment		I.T.		27	25	28	35	
6	of students		E.E.E.		64	65	55	43	
O	in the last 3		A.I.E.		25	25	24	21	
	years		B.M.E		20	18	19	18	
			PG –Engineering			T	1	1	
			P.S.E		12	11	13	12	
			C.E.		05	06	05	05	
			CSE		11	10	13	09	
			E.T.C. <b>PG-MCA</b>		10 41	11 45	13 45	09 41	
			PG-MCA PG -MBA		41	45 45	45 45	41 45	
			PG -WIBA		44	45	40	45	
	List of			in last three y	ears out of				
			Programme/Course	CAY (2022-20)	CA 23) (2021-	-	CAY <sub>2</sub> (20-2021)	CAY <sub>3</sub> (2019-2020)	
			PG –Engineering	(2022-20	23)   (2021-	2022)   (20	120-2021)	(2019-2020)	
		-	P.S.E.	_	_		_	-	
_	Research		E.T.C.	_	_		-	-	
7	Projects/		CSE	-	-		-	-	
	Consultancy Works		C.E.	-	-		-	-	
	WOIKS		PG - MCA	-	-		-	-	
	1		PG - MBA	-	-		-	-	
		Num	ber of Projects carried out,	funding ager	ncy, Grant rece	ived: NIL			
			stry Linkage:						
		MoU	s with Industries (Enclosed	)				_	
8	LoA and subsequent EoA till the current Academic Year	Available on the website URL: http://miet.edu.in/							
9	Accounted audited statement for the last three years	Avail	able on the website URL:	http://www	.miet.edu.in/				
20	Best	Enri	chment of Teaching and L	earning Pro	ocess				
1	Practices adopted, if any		<ul> <li>On-line Feedback from</li> <li>Improving Library with p</li> <li>Intensive use of techn</li> </ul>	students and e-re	d alumni for strees				

- Wi-Fi enabled campus encourages additional learning by way of access to website containing elearning resources.
- Monitoring center for research for undergoing M.Tech. scholar's dissertation work
- Transparency ensured in evaluating students' academic performance
- 24x7 students' feedback about teachers' performance and follow-on action.
- Introduced appraisal of teachers' performance by the students twice in an academic year

#### **Enrichment of Skill Sets of Student**

- Promoting the students for their involvement in co-curricular activities within and outside the campus by assigning additional credit under an able guidance of faculty
- Industrial training and internship since second year of UG program
- Conducting guest lectures, workshops and seminars to encourage higher education
- Proctor system each faculty member work as a proctor for a group of twenty students (five each from First year to final year B.Tech. program) for counseling and better performance of students.
- Advanced learners are encouraged to come out with innovative ideas / take up short term projects and they are involved in mentoring activities.
- Incubation center with the motive of encouraging the establishment of start-up companies in the immediate future
- Career guidance cells, soft-skill development activities, grievance redressal cell helping students to
  excel in academics.

#### Interaction with Outside World

- Establishment of tie-ups with renowned industries and institutes
- Motivation and support for students for appearing competitive exams and summer internship in industries, research Institute in India and abroad.
- Creation of Centers of Excellence to promote research in diversified fields to emerge in National and International level.
- Formation of Industry-Institute Partnership Cell to promote professional education and research.
- · Academic flexibility and participation of industries in teaching.

#### **Faculty Development and Welfare**

- ERP implementation for management of Leave, Time table, Salary, Library, Exam and results, Fees Collection, Teaching learning processes, Admissions, etc.
- Appropriate functioning of grievance Redressal mechanism
- Implementation of CAS to promote faculty to higher post
- Enhance teacher quality, all the faculty members to pursue Ph.D.
- Encourage faculty members apply for research and development projects funded by DST, UGC, CSIR, AICTE, DRDO, etc.
- FDP courses for the benefit of faculty members.
- Faculty members organizing / attending short term courses in emerging areas.
- Encourage all faculties in research, consultancy and extension in new and emerging areas thereby revenue generation.



Dr.Asit Mohanty

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Email:asithimansu@gmail.com,asit.mohanty@uniten.edu.my

#### Asit Mohanty (0000-0001-6124-1957) - ORCID

\*(Scopus Author ID: 55521129800)

# **EDUCATIONAL QUALIFICATIONS-**

1992-1996 Bachelor of Engineering (B. Engg.), Electrical Engineering from NIT, Durgapur, West Bengal, India

2004-2006 M Tech in Power Electronics Drives, **MD University**, **Delhi**, **India** 

Thesis Title: "Fuzzy logic based motor control"

2008-2012 Research Scholar in Electrical Engineering from Motilal Nehru National Institute of Technology (MNNIT), Allahabad, India

2014-2021 PhD (Awarded) in Electrical Engineering from College of Engineering & Technology (CET), Bhubaneswar, Odisha, India

<sup>\*</sup>https://scholar.google.com/citations?hl=en&user=8cYxqK4AAAAJ&view\_op=list\_works&sort by=pubdate

<sup>\*</sup>https://www.linkedin.com/in/dr-asit-mohanty-75a14672/?original\_referer=https%3A%2F%2Fwww%2Egoogle%2Eco%2Ein%2F&originalSu bdomain=my

Thesis Title: "Reactive power and stability Improvement of a standalone hybrid Power system with conventional and Soft computing methods"

April 2023 onwards-Postdoc research fellow, UNITEN, Energy University, Kualalumpur ,Malayasia-43000

# Experience Summary:

- (2022-tilldate), Principal & HOD, Electrical, Mahavir Institute of Engineering and Technology, Bhubaneswar, India
- (2017 -2022)Lecturer, Department of Electrical Engineering, College of Engineering & Technology(CET), Bhubaneswar, Institute of National Importance Under AICTE, Govt. of India.
- Research Scholar, Department of Electrical Engineering, National Institute of Technology, Allahabad, India
- Asst Professor in the Department of Electrical Engineering, Temple city Institute of Technology & Engineering (TITE), Bhubaneswar, India
- Asst Professor, Department of Electrical Engineering, Konark Institute of Science & Technology(KIST) Bhubaneswar, India
- Project Engineer Manager, Hargolal & Sons, Ambala, India
- Site Engineer, NECO India, Nagpur, India.
- Guest Lecturer, Department of Electrical Engineering,, National Institute of Technology, Kurukshetra, India

# **CURRENT RESEARCH ACTIVITIES:**

- --Stability improvement in Hybrid Distributed Generation based power system.
- --Optimization and Control for Frequency and Voltage Regulation in Microgrid
- -- Application of Custom Power Devices for stability Improvements in DG
- --Optimal active and reactive power control and power managements in Micro grid
- --Solar radiation forecasting using different soft computing techniques
- ---Solar thermal energy storage and photovoltaic thermal system

Technical Skills: Softwares: MATLAB, PSCAD, And LABVIEW

*Hardware/Real Time Simulator:* Experimental proto-type of wind and PV system for reactive power control & stability analysis, dSPACE, OPAL-RT

#### Research Guidance:

- No of PhD. Thesis Guidance under process: 1
- No of M. Tech Thesis Guided: 15

# Course Taught in B. Tech /M. Tech (Undergraduate/Postgraduate Level)

- Network Analysis and Synthesis
- RiReal-time Control of a Tidal power system through Differential Evolution and Firefly
- SrAlgorithm. Global Energy Interconnection, 2022. ELSEVIER (IF-2.1)
- Power Electronics
- ullet Resilient control based frequency regulation scheme of isolated microgrids considering cyber attack and parameter uncertainties. Applied Energy. 2022 Jan 15;306:118054. ELSEVIER (IF-11.446)

Professional Society Member:

- Senior Member IEEE
- Fellow of the Institution of Engineers
- Life Member ISTE
- Life Member IIIE

#### Awards:

- **BEST RESEARCHER AWARD, BPUT (2019-2020)**
- IETE K S KRISHNAN MEMORIAL AWARD-2020
- Short listed for POSOCO Award (50 Candidates INDIA) PPSA 2018

## **PUBLICATIONS:**

#### INTERNATIONAL JOURNALS

## 2023

Mishra, D.K., Mohanty, A. and Ray, P.K., 2023. An optimal frequency regulation in interconnected power system through differential evolution and firefly algorithm. Soft Computing, pp.1-14.

(IF-4.1)

# 2022

Adaptive Neuro-Fuzzy Approach for Solar Radiation Forecasting in Cyclone Ravaged Indian Cities: A Review. Front. Energy Res, 2022 10, p.828097.

(IF-4.1)

- Real-time Control of a Tidal power system through Differential Evolution and Firefly Algorithm. Global Energy Interconnection, 2022. ELSEVIER (IF-2.1)
- Resilient control based frequency regulation scheme of isolated microgrids considering cyber attack and parameter uncertainties. Applied Energy. 2022 Jan 15;306:118054. ELSEVIER (IF-11.446)

 A review on solid-state transformer: A breakthrough technology for future smart distribution grids. *International Journal of Electrical Power & Energy* Systems. 2021 Dec 1;133:107255. ELSEVIER

(IF-5.2)

- An adaptive fractional fuzzy sliding mode controlled PSS for transient stability improvement under different system uncertainties. *IET Smart Grid.* 2021 Feb;4(1):61-75. (IF-2.5)

## 2020

- Performance of PV integrated multilevel inverter for PQ enhancement,
   International Journal of Electronics, 1-38,
   (IF: 1.004)
- Adaptive fuzzy controlled hybrid shunt active power filter for power quality enhancement. Neural computing & applications. SPRINGER, (IF: 4.664)
- PSO-GWO Optimized Fractional Order PID Based Hybrid Shunt Active Power Filter for Power Quality Improvements. *IEEE Access*, 8, pp.74497 (IF: 4.098)
- Effect of Superconducting Magnetic Energy Storage on Two Agent Deregulated Power System Under Open Market. *Materials Today: Proceedings*, 21, pp.1919-1929. ELSEVIER (IF: 0.694; 5 years IF: 1.09)
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# 2019

• A robust firefly-swarm hybrid optimization for frequency control in wind/PV/FC based microgrid. *Applied Soft Computing*, *85*, p.105823. ELSEVIER (IF:8.7)

- Detection of islanding and fault disturbances in microgrid using wavelet packet transform. *IETE Journal of Research*, 65(6), pp.796-809. (IF:1.5)
- A Hybrid Firefly-Swarm Optimized Fractional Order Interval Type-2 Fuzzy PID-PSS for Transient Stability Improvement. *IEEE Transactions on Industry Applications*, 55(6), pp.6486-6498. (IF:3.147)
- Stability and optimisation of direct drive permanent magnet synchronous generator based tidal turbine. *Vacuum*, *166*, pp.341-350. ELSEVIER(IF: 4)
- Linear matrix inequality approach in stability improvement through reactive power control in hybrid distributed generation system. *IET Smart Grid*. (IF-2.5)
- Artificial intelligence based forecasting & optimization of solar cell model. *Optik*, *181*, pp.842-852. ELSEVIER (IF: 3.1)
- Power quality analysis in solar PV integrated microgrid using independent component analysis and support vector machine. Optik, 180, pp.691-698 ELSEVIER
   (IF: 3.1)
- Restoration of stable voltage in an isolated hybrid solar power system with combined JAYA-DE algorithm. *Optik*, *180*, pp.536-548. ELSEVIER (IF: 3.1)
- Performance evaluation of multilevel inverter based hybrid active filter using soft computing techniques. *Evolutionary Intelligence*, pp.1-11. *ELSEVIER SCOPUS* (IF: 2.6)
- Implementation of digital temperature control system on photovoltaic cell model: an experimental analysis. Optik, 176, pp.324-333. ELSEVIER (IF: 3.1)

- Fuzzy-Controller-Designed-PV-Based Custom Power Device for Power Quality Enhancement. *IEEE Transactions on Energy Conversion*, 34(1), pp.405-414.
   (IF: 4.614)
- Comprehensive review on enhancement of stability in multimachine power system with conventional and distributed generations. *IET Renewable Power Generation*, 12(16), pp.1854-1863. (IF: 2.6)

- Stability improvement in solar PV integrated power system using quasidifferential search optimized SVC controller. *Optik*, *170*, pp.420-430 (IF: 3.1)
- Experimental analysis of a standalone solar photo voltaic cell for improved power quality. *Optik*, *171*, pp.876-885. ELSEVIER (IF: 3.1)
- Modified wavelet transform based fault analysis in a solar photovoltaic system. *Optik*, 168, pp.754-763. ELSEVIER (IF: 3.1)
- Detection and classification of faults in a microgrid using wavelet neural network. Journal of Information and Optimization Sciences, 39(1), pp.327-335.ESCI
- Fuzzy Sliding Mode Based Series Hybrid Active Power Filter for Power Quality Enhancement. Advances in Fuzzy Systems, 2018.ESCI
- Performance Enhancement of AGC under open market scenario using TDOFPID and IPFC controller. *Journal of Intelligent & Fuzzy Systems*, pp.1-11.SCIE, (IF: 1.637)
- A novel multi-attribute decision making approach for selection of appropriate product conforming ergonomic considerations. *Operations Research Perspectives*, 5, pp.82-93. ELSEVIER (IF: 3.247; 5 years IF: 2.277)

- Forecasting of solar energy with application for a growing economy like India: Survey and implication. Renewable and Sustainable Energy Reviews, 78, pp.539-553. ELSEVIER (IF-16.67)
- Improvement of Stability in Solar Energy Based Power System Using Hybrid PSO-GS Based Optimal SVC Damping Controller. *Energy Procedia*, 109, pp.130-137. ELSEVIER scopus Research Gate (IF-1.07)
- Modelling & Simulation of a PV Based Micro Grid for Enhanced Stability. Energy Procedia, 109, pp.94-101. ELSEVIER scopus Research Gate (IF-1.07)

## 2016

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- Robust fuzzy-sliding mode based UPFC controller for transient stability analysis in autonomous wind-diesel-PV hybrid system. *IET Generation, Transmission & Distribution*, 10(5), pp.1248-1257. (IF:2.6)
- Reactive power control and optimisation of hybrid off shore tidal turbine with system uncertainties. *Journal of Ocean Engineering and Science*, 1(4), pp.256-267. ELSEVIER SCOPUS (IF-7.1)
- Modelling, simulation and optimisation of robust PV based micro grid for mitigation of reactive power and voltage instability. *International Journal of Electrical Power & Energy Systems*, 81, pp.444-458. ELSEVIER (IF: 5.2)

- Reactive Power Compensation in a Stand-alone Wind-diesel-tidal Hybrid System by a Fuzzy Logic Based UPFC. *Procedia Computer Science*, *57*, pp.1281-1288. ELSEVIER scopus Research Gate (IF-1.08)
- Prevention of transient instability and reactive power mismatch in a stand-alone wind-diesel-tidal hybrid system by an ANN based SVC. Aquatic Procedia, 4, pp.1529-1536. ELSEVIER scopus
- A Novel ANN Based UPFC for Voltage Stability and Reactive Power Management in a Remote Hybrid System. *Procedia Computer Science*, 48, pp.555-560. ELSEVIER scopus Research Gate (IF-1.08)
- Intelligent Voltage and Reactive Power Management in a Standalone PV Based Microgrid. *Procedia Technology*, 21, pp.443-451.ELSEVIER scopus Research Gate (IF-0.73)
- Intelligent Controller based SVC for Voltage Stability Improvement in a Standalone Wind-Diesel-micro Hydro Hybrid System. *Procedia Computer Science*, 57, pp.1308-1316. ELSEVIER scopus Research Gate (IF-1.08)
- Optimization and improvement of voltage stability in a wind-diesel-micro hydro system. Procedia Technology, 21, pp.373-379. ELSEVIER SCOPUS, Researchgate (IF-0.73)

#### 2014

Stability analysis and reactive power compensation issue in a microgrid with a
DFIG based WECS. International Journal of Electrical Power & Energy
Systems, 62, pp.753-762. ELSEVIER (IF: 5.2)

 An optimised robust controller for Voltage stability and reactive power compensation in a remote PV based Microgrid, International Review of Automatic Control (IREACO) 8 (7), pp.450-461. ELSEVIER scopus Research Gate (IF-0.54)

## 2013

• Transient Stability Analysis in Wind Diesel Hybrid System with Fuzzy-PI Based FACTS Controllers. *International Review on Modelling and Simulations* (IREMOS), 6(2), pp.455-464. **ELSEVIER SCOPUS Research Gate** 

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- Neuro-Fuzzy Sliding Mode Control based Wide Area Power System Stabilizer For Transient Stability Improvement. In 2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies (pp. 1-6). IEEE.
- A comprehensive review on microgrid protection: Issues and challenges. In 2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies (pp. 1-6). IEEE.
- Power quality improvement in isolated microgrid using interleaved soft-switching boost converter with modulated three phase voltage source inverter. In2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies 2021 Mar 5 (pp. 1-5). IEEE.
- Power Quality Enhancement in PV and Battery Storage Based Microgrid Using Hybrid Active Filter. In2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies 2021 Mar 5 (pp. 1-5). IEEE.
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- Neuro-Fuzzy Sliding Mode Control based Wide Area Power System Stabilizer For Transient Stability Improvement. In2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies 2021 Mar 5 (pp. 1-6). IEEE.
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- LMI approach in Stability improvement through reactive power control in DG based hybrid power system," 2018 1st International Conference on Advanced Research in Engineering Sciences (ARES), Dubai, United Arab Emirates, 2018, pp. 1-7.
- Literature survey on OPAL-RT Technologies with Advance features and Industrial applications," 2018 1st International Conference on Advanced Research in Engineering Sciences (ARES), Dubai, United Arab Emirates, 2018, pp. 1-5.
- Back stepping sliding mode control for transient voltage stability in standalone hybrid power system: An experimental analysis," 2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Chennai, India, 2018, pp. 1-6.
- Design and Analysis of Renewable Energy based Generation Control in a Restructured Power System," 2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Chennai, India, 2018, pp. 1-6.
- Improvement of Power Quality using Advanced Artificial Neural Network Algorithm," 2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Chennai, India, 2018, pp. 1-6.
- Impact of wind/solar integration on frequency control in two-area power system," 2018 19th International Carpathian Control Conference (ICCC), Szilvasvarad, 2018, pp. 580-584.
- Improvement in power quality using hybrid power filters based on robust extended Kalman filter," 2018 19th International Carpathian Control Conference (ICCC), Szilvasvarad, 2018, pp. 585-590.
- Firefly algorithm scaled fractional order fuzzy PID based PSS for transient stability improvement," 2018 19th International Carpathian Control Conference (ICCC), Szilvasvarad, 2018, pp. 428-433.
- A review on stability enhancement in SMIB system using artificial intelligence based techniques," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 2018, pp. 1-6.

- Power management in wind-fuel cell-ultracapacitor based autonomous hybrid power system," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 2018, pp. 1-6.
- Modelling and analysis of a harmonic filter for a Grid connected DFIG underfault condition," 2017 Recent Developments in Control, Automation & Power Engineering (RDCAPE), Noida, 2017, pp. 521-526.
- A comparative analysis of load frequency control of two-area interconnected hybrid power system using LabVIEW," 2017 Progress in Electromagnetics Research Symposium Fall (PIERS FALL), Singapore, 2017, pp. 1953-1960.
- Optimization of TCSC with multi objective firefly algorithm for enhancing SMIB system," 2017 Progress in Electromagnetics Research Symposium Fall (PIERS FALL), Singapore, 2017, pp. 1215-1222.
- Application of tilt integral derivative filter for load frequency control of three area interconnecetd system," 2017 Progress in Electromagnetics Research Symposium Fall (PIERS FALL), Singapore, 2017, pp. 2059-2066.
- Bat algorithm optimized SVC for power system stability enhancement," 2017 Progress in Electromagnetics Research Symposium Fall (PIERS FALL), Singapore, 2017, pp. 1977-1983.
- Swarm and BAT algorithm optimized 2DOF-FOPID based STATCOM controller for transient stability enhancement," 2017 Progress in Electromagnetics Research Symposium Fall (PIERS FALL), Singapore, 2017, pp. 1961-1968.
- Firefly-swarm optimized fuzzy adaptive PSS in power system for transient stability enhancement," 2017 Progress in Electromagnetics Research Symposium Fall (PIERS FALL), Singapore, 2017, pp. 1969-1976.
- Application of integral double derivative with filter for load frequency control in multi area power system," 2017 IEEE Calcutta Conference (CALCON), Kolkata, 2017, pp. 220-225.
- Multi-area interconnected automatic generation control with IPFC and TDOFPID controller," 2017 Third International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN), Kolkata, 2017, pp. 279-284.
- Enhancement of power quality disturbances using hybrid power filters," 2017 International Conference on Circuit, Power and Computing Technologies (ICCPCT), Kollam, 2017, pp. 1-6.

- MATLAB/Simulink based FA for optimizing TCSC controller in a power system," 2017 4th International Conference on Advanced Computing and Communication Systems (ICACCS), Coimbatore, 2017, pp. 1-7.
- Multi stage fuzzy logic based reactive power control of offgrid wind-diesel hybrid power system," 3rd International Conference on Electrical, Electronics, Engineering Trends, Communication, Optimization and Sciences (EEECOS 2016), Tadepalligudem, 2016, pp. 1-6.
- Differential Evolution-Swarm Hybrid Optimization Based SVC Controller for Transient Stability Analysis in SMIB," 2016 International Conference on Information Technology (ICIT), Bhubaneswar, 2016, pp. 298-303.
- ANFIS based sliding mode controller for reactive power compensation in fuel cell based hybrid power system," 2016 International Conference on Signal Processing, Communication, Power and Embedded System (SCOPES), Paralakhemundi, 2016, pp. 851-855.
- Bacterial foraging optimized STATCOM for stability assessment in power system," 2016 IEEE Students' Technology Symposium (TechSym), Kharagpur, 2016, pp. 85-89.
- Swarm and bacterial foraging based optimal power system stabilizer for stability improvement," 2016 IEEE Region 10 Conference (TENCON), Singapore, 2016, pp. 1916-1920.
- An adaptive Fuzzy sliding mode controller for reactive power & transient stability management," 2016 IEEE Region 10 Conference (TENCON), Singapore, 2016, pp. 3195-3199.
- Modeling and optimization of remote solar Wind hybrid station for stability & reactive power management," 2015 International Conference on Man and Machine Interfacing (MAMI), Bhubaneswar, 2015, pp. 1-6.
- Reactive power compensation using PSO controlled UPFC in a microgrid with a DFIG based WECS," 2015 Annual IEEE India Conference (INDICON), New Delhi, 2015, pp. 1-5.
- Automated frequency control using fuzzy-sliding mode in wind-thermal-hydro hybrid system," 2015 IEEE Power, Communication and Information Technology Conference (PCITC), Bhubaneswar, 2015, pp. 889-894.
- An optimized STATCOM controller for voltage stability and reactive power compensation in an isolated micro grid," 2015 IEEE Power, Communication and Information Technology Conference (PCITC), Bhubaneswar, 2015, pp. 884-888.

- Interval system analysis and PID-PSO control of boost converter for uncertain load parameter," 2014 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Mumbai, 2014, pp. 1-6.
- Comparative assessment of the improvement of output voltage with increased level quasi-Z Source Multilevel inverter," 2013 Students Conference on Engineering and Systems (SCES), Allahabad, 2013, pp. 1-5.
- Self tuned Fuzzy-PI based reactive power compensation in wind-diesel hybrid system," 2013 International Conference on Circuits, Power and Computing Technologies (ICCPCT), Nagercoil, 2013, pp. 362-367.
- Power quality improvement in 3-Φ grid connected photovoltaic system with battery storage," 2012 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Bengaluru, 2012, pp. 1-6.
- Small-Signal Analysis of Hybrid Distributed Generation System with HVDC-Link and Energy Storage Elements," 2009 Second International Conference on Emerging Trends in Engineering & Technology, Nagpur, 2009, pp. 1-6.

## **BOOK CHAPTERS**

- Optimised fractional order PID controller in automatic generation control. *Computer, Communication and Electrical Technology*, pp.215-219.
- Detection of faults in power system using wavelet transform and independent component analysis. In Computer, Communication and Electrical Technology: Proceedings of the International Conference on Advancement of Computer Communication and Electrical Technology (ACCET 2016) (p. 227). CRC Press.
- Impact of fuzzy logic based upfc controller on voltage stability of a stand-alone hybrid system. In *Computational Intelligence in Data Mining-Volume 3* (pp. 149-158). Springer, New Delhi.
- Fault detection in IEEE 14-bus power system with DG penetration using wavelet transform. In Computer, Communication and Electrical Technology: Proceedings of the International Conference on Advancement of Computer Communication and Electrical Technology (ACCET 2016), West Bengal, India, 21-22 October 2016 (p. 221). CRC Press.
- Fuzzy Sliding Mode-Based STATCOM for Stability and Reactive Power Compensation in DG-Based Power System. In *Proceedings of the International Conference on Signal, Networks, Computing, and Systems* (pp. 105-114). Springer, New Delhi.

- Integrating Concentrating Solar Plant-Based System in Multi-area AGC Using LabVIEW. In *Information and Communication Technology for Competitive Strategies* (pp. 675-686). Springer, Singapore.
- Fuzzy Logic Based UPFC Controller for Voltage Stability and Reactive Control of a Stand-Alone Hybrid System. In *Proceedings of 3rd International Conference on Advanced Computing, Networking and Informatics* (pp. 3-10). Springer, New Delhi.
- ANFIS-Based Controller for DFIG-Based Tidal Current Turbine to Improve System Stability. In *Proceedings of the International Conference on Signal, Networks, Computing, and Systems* (pp. 115-122). Springer, New Delhi.
- An intelligent controller for the enhancement of voltage stability and power oscillation damping of an isolated micro grid. In Foundations and Frontiers in Computer, Communication and Electrical Engineering: Proceedings of the 3rd International Conference on Foundations and Frontiers in Computer, Communication and Electrical Engineering, 2016 (C2E2-2016) (pp. 139-141). Taylor & Francis Books Ltd.
- Improvement of Power Quality Using Hybrid Active Filter with Artificial Intelligence Techniques. In *Applications of Computing, Automation and Wireless Systems in Electrical Engineering* (pp. 393-402). Springer, Singapore.
- ANFIS-Based Modeling for Prediction of Surface Roughness in Powder Mixed Electric Discharge Machining. In *Computational Intelligence in Data Mining* (pp. 151-159). Springer, Singapore.
- Comparative Assessment for Power Quality Improvement Using Hybrid Power Filters. In *Recent Findings in Intelligent Computing Techniques* (pp. 257-265). Springer, Singapore.
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- Dolphin Echolocation and Fractional Order PID-Based STATCOM for Transient Stability Enhancement. In *Recent Findings in Intelligent Computing Techniques* (pp. 483-492). Springer, Singapore.
- Short Term Solar Energy Forecasting by Using Fuzzy Logic and ANFIS. In *Computational Intelligence in Data Mining* (pp. 751-765). Springer, Singapore.
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# **BOOKS:**

#### Text Book

### 1.Lighting of Building and Illumination

(Shaswat Publication, Under process)

#### 2.Basic Electrical Engineering Paperback

• ASIN: B07NRZY9W2

• Publisher :WILEY (1 January 2019)

Language : English
Paperback : 376 pages
ISBN-10 : 9389307767
ISBN-13 : 978-9389307764

• Item Weight: 250 g

#### 3.Research Book:

## Optimized FOPID controller for reactive Power management & stability Paperback

• Publisher: LAP LAMBERT Academic Publishing; 1st edition (1 January 2017)

Language : EnglishPaperback : 60 pagesISBN-10 : 6202004932ISBN-13 : 978-6202004930

• Item Weight: 90 g

• Dimensions: 15.01 x 0.36 x 22 cm

• Country of Origin : India

#### **Declaration:**

I hereby declare that the above written particulars are true to the best of my knowledge and belief.

Place: BBSR Asit Mohanty