B. I. T. Sindri, Dhanbad-828123, Jharkhand

List of Ph. D research Scholars along with Supervisor's name and course work to be done as approved by the Research Degree Committee (RDC) of BIT Sindri,

Name of the Department: Mechanical Engineering

Sl. no.	Name of candidates	Name of proposed supervisor	Name of course work	Credit	Broad Area
	Prabhakar	Dr. R. K. Nayak	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Fundamental of automotive system v) Fundamental of combustion	4 3 3 3 3	Thermal
2.	Suresh Tiwari	Dr. S. K. Chaudhary	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Computer integrated manufacturing v) Manufacturing process technology I & II	4 3 3 3 3	Manufacturing
3.	Avinash Kumar	Prof. (Dr,) Manoj Kumar	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Engineering mechanics: Statics and dynamics v) Kinematics of mechanism and machine	4 3 3 2 3	Design/ Machine and Mechanism

4.	Dhiraj Jha	Prof. (Dr.) Vijay Pandey	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) I.C. Engine and gas turbine v) Fundamentals of	4 3 3 3 3	Thermal/ Alternate Energy
5.	Arvind Kumar	Dr. Dhaneswar Mahto	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Fundamental of combustion v) IC engine and Gas Turbine	4 3 3 3 3	Thermal
6.	Vikash Kumar Gorai	Prof. (Dr.) S. K. Singh	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) I. C. Engines and Gas turbine v) Heat transfer	4 3 3 3 3	Thermal/ Heat transfer
7.	Mukesh Kumar	Dr. Ravishankar Prasad	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Conduction and convection heat transfer v) Experimental methods in fluid mechanics	4 3 3 3 3	Thermal/ heat transfer

8.	Mahendra Kumar Bhagat	Dr. U. K. Nayak	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Non Conventional Energy resources v) Air pollution and control	4 3 3 3 3	Renewable Energy Sources
9.	Mahmood Alam	Dr. Chandan kumar	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Material characterization v) Mechanics of fiber reinforced polymer composite	4 3 3 3 3	Design/ Composite materials
10.	Amit Kumar Mishra	Prof. (Dr.) S. K. Singh (Supervisor) Prof. (Dr.) Vijay Pandey (Co-supervisor)	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** vi) I. C. Engines and Gas turbine iv) Conduction and convection heat transfer	4 3 3 3 3	Thermal
11.	Nishant Kumar (ADF)	Dr. Chaitanya Sharma	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Welding metallurgy v) Material characterization	4 3 3 3 3	Manufacturing/ Welding

12.	Md. Mofeed Alam (ADF)	Dr. J. N. Mahto	i) Research Methodology ii) Soft Computing iii) Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Dealing with materials data collection, analysis and interpretation v) Welding metallurgy	4 3 3 3 3	Manufacturing / Welding
13.	Dharmendra Bhusan (ADF)	Dr. Sunil Kumar	i) Research Methodology ii) Soft Computing iii)Advance mathematical methods in Engineering **Two papers from NPTEL/ SWAYAM online course:** iv) Renewable energy engineering, solar, wind and bio-mass energy systems v) Non-conventional energy resources	4 3 3 3 3	Renewable energy

Name of the Department: Electrical Engineering

Sl. No.	Name of the candidates	Name of proposed supervisor	Name of course work	Broad Area	credits
1.	Mr. Rakesh Rohan	Prof. D.K. Tanti	i) Research Methodology ii) Soft Computing iii) Advance Power Electronics **Any two papers from NPTEL online courses listed below** iv) Power System Engineering v) Power System Dynamic, Control and Monitoring	Power System	4 3 3 3 3 3
2.	Mr. Praveen Kumar	Prof. Pankaj Rai	i) Research Methodology ii) Soft Computing iii) Advance Power Electronics **Any two papers from NPTEL online courses listed below** iv) Control Engineering v) Non Linear System	Control System	4 3 3 3 3 3
3.	Mr. Sumit Kumar Das	Dr. Nirmala Soren	i) Research Methodology ii) Soft Computing iii) Advance Power Electronics **Any two papers from NPTEL online courses listed below** iv) Power System Engineering v) Power System Dynamic, Control and Monitoring	Power System	4 3 3 3 3
4.	Mr. Lal Krishna	Dr. Vineet Shekhar	i) Research Methodology ii) Soft Computing iii) Advance Power Electronics **Any two papers from NPTEL online courses listed below** iv) Control Engineering v) Non Linear System	Control System	4 3 3 3 3 3

5.	Mr. Deo Kumar Mahesh	Dr. Rajendra Murmu	i) Research Methodology ii) Soft Computing iii) Advance Power Electronics **Any two papers from NPTEL online courses listed below** iv) Power System Engineering v) Power System Dynamic, Control and Monitoring	Power System	4 3 3 3 3 3
6.	Mr. Mukhlesur Rahman	Dr. Md. Abul Kalam	i) Research Methodology ii) Soft Computing iii) Advance Power Electronics **Any two papers from NPTEL online courses listed below** iv) Power System Engineering v) Power System Dynamic, Control and Monitoring	Power System	4 3 3 3 3 3
7.	Mr. Prakriti Kumar Srivastava	Prof. Upendra Prasad	i) Research Methodology ii) Soft Computing iii) Advance Power Electronics **Any two papers from NPTEL online courses listed below** iv) Power System Engineering v) Power System Dynamic, Control and Monitoring	Power System	4 3 3 3 3 3
8.	Mr. Anant Kumar	Dr. Hari Mohan Dubey	i) Research Methodology ii) Soft Computing iii) Advance Power Electronics **Any two papers from NPTEL online courses listed below** iv) Power System Engineering v) Power System Dynamic, Control and Monitoring	Power System	4 3 3 3 3 3

Name of the Department: Production & Industrial Engineering

Sl No.	Name of the Candidate	Supervisor	Subjects Allotted	Credits	Area of Research
1.	Mr. Sajal Kumar	Prof. Prakash Kumar,	**1. Research Methodology** **2. Soft Computing** **3. Dept. Core:** Operations Management **4. Elect. I:** Modeling and Analytics for Supply Chain Management **NPTEL:noc22-mg27** **5. Elect. II:** Management of Inventory System **NPTEL:noc22-mg17**	4 3 3 3 3	Inventory and Supply Chain Management
2.	Mr. Anurag Anand	Prof. Prakash Kumar,	**1. Research Methodology** – **2. Soft Computing** **3. Dept. Core:** Operations Management **4. Elect. I:** Industrial Automation & Control **NPTEL:noc22-me59** **5. Elect. II:** Safety & Risk Analytics -	4 3 3 3 3	Reconfigurable Manufacturing System, Maintenance Strategy
3.	Mr. Jitendra Kumar Das	Prof. Rakesh,	**1. Research Methodology-** **2. Soft Computing-** **3. Dept. Core:** Operations Management- **4. Elect. I:** Data Analysis & Decision Making-I- **NPTEL:noc22-mg02-** **5. Elect. II:** Safety & Risk Analytics- **NPTEL:noc22-mg55**	4 3 3 3 3	Inventory/ Operations Management

Name of the Department: Chemical Engineering

Candidate's Name	Supervisor	Courses work for PhD	Credit	Broad Area
Sonam	Dr. Amar Kumar	1. Research Methodology 2. Soft Computing 3. Advance Fluidization Engineering 4. Environmental Quality Monitoring & Analysis (NPTEL) 5. Renewable Energy Engineering (NPTEL)	4 3 3 3 3	Renewable Energy

Name of the Department: Civil Engineering

Sl. No.	Name of Research Scholar	Supervisor	Subject Allotted	Credits	Broad Area
01.	Mr. Sanjeev Kumar (User ID - 1188) Session – 2019 – 20	1) Prof. Ran Vijay Singh, Supervisor 2) Dr. Kunal Kumar, Co-Supervisor	1) Research Methodology 2) Soft Computing 3) Environmental Impact Assessment Elective :- 1) Integrated Waste Management for Smart Cities (NPTEL) 2) Waste Water treatment and Recycling (NPTEL)	4 3 3 3 3	Waste Management
02.	Mr. Sachin Kumar (2020–21)	Prof. Ran Vijay Singh, Supervisor	1) Research Methodology 2) Soft Computing 3) Environmental Impact Assessment Elective :- 1) Integrated Waste Management for Smart Cities (NPTEL) 2) Waste Water treatment and Recycling(NPTEL)	4 3 3 3 3	Waste Management
03.	Mr. Shahzad Asgar Moeeni (2021–22)	Dr. Jitu Kujur, Supervisor	1) Research Methodology 2) Soft Computing 3) Environmental Impact Assessment Elective :- 1) Retrofitting and Rehabilitation of civil infrastructure (NPTEL) 2) Concrete Technology (NPTEL)	4 3 3 3 3	Infrasturectu re and Construction
04.	Mr. Rohit Raj (2021–22)	Dr. Brahamdeo Yadav, Supervisor	1) Research Methodology 2) Soft Computing 3) Environmental Impact Assessment Elective :- 1. Ground Improvement Engg. (NPTEL) 2. Soil Dynamics (NPTEL)	4 3 3 3 3	Geotechnology

05.	Mr. Nipen Kumar Das (2021–22)	Dr. Maya Rajnarayan Ray, Supervisor	1) Research Methodology 2) Soft Computing 3) Environmental Impact Assessment Elective :- 1) Engineering Hydrology(NPTEL) 2) Surface Water Hydrology (NPTEL)	4 3 3 3 3	hydrology
06.	Ms. Ankita (2021–22)	Dr. Maya Rajnarayan Ray, Supervisor	1) Research Methodology 2) Soft Computing 3) Environmental Impact Assessment Elective :- 1) Engineering Hydrology (NPTEL) 2) Surface Water Hydrology (NPTEL)	4 3 3 3 3	Hydrology

Name of the Department: Electronics & Communication Engineering

Sr. No	Name of Scholar	Name of Guide	Subjects allotted	Credit	Broad Area
1.	Utpal Kumar Paul	Dr. Amar Prakash Sinha	1. Research Methodology	4	Sensors/ IoT
			2. Soft computing	3	
			3. Scientific computing using MATLAB	3	
			4. Sensors and Actuators (NPTEL)	3	
			5. Introduction to IoT	3	
2.	Sangeta Kumari	Dr. Arvind Kumar	1. Research Methodology	4	Antenna/ microwave
			2. Soft computing	3	
			3. Scientific computing using MATLAB	3	
			4, Antennas (NPTEL)	3	
			5. Microwave Integrated Circuits (NPTEL)	3	
3.	Nilesh Kumar	Dr. Arvind Kumar	1. Research Methodology	4	Antenna/ microwave
			2. Soft computing	3	
			3. Scientific computing using MATLAB	3	
			4, Antennas (NPTEL)	3	
			5. Microwave Integrated Circuits (NPTEL)	3	
4.	Samir Sharma	Dr. Amar Prakash Sinha	1. Research Methodology	4	Sensors/ IoT
			2. Soft computing	3	
			3. Scientific computing using MATLAB	3	
			4. Sensors and Actuators (NPTEL)	3	
			5. Introduction to IoT (NPTEL)	3	
5.			1. Research Methodology	4	Signal

	Bulty Chakraborty	Dr. Imteyaz Ahmad	2. Soft computing	3	system
			3. Scientific computing using MATLAB		
			4. Discrete time signal processing (NPTEL)		
			5. Biomedical signal processing (NPTEL)		
6.	Manisha Rani oppo	Dr. Imteyaz Ahmad	1. Research Methodology	4	Signal System
			2. Soft computing	3	
			3. Scientific computing using MATLAB	3	
			4. Discrete time signal processing (NPTEL)	3	
			5. Biomedical signal processing (NPTEL)	3	
7	Rahul Ranjan	Prof. M. G. Tiary	1. Research Methodology	4	Microwave /Antenna
			2. Soft computing	3	
			3. Scientific computing using MATLAB	3	
			4, Antennas (NPTEL)	3	
			5. Microwave Integrated Circuits (NPTEL)	3	
8.	Rakesh Kumar	Prof. D. K. Singh	1. Research Methodology	4	Microwave /Antenna
			2. Soft computing	3	
			3. Scientific computing using MATLAB	3	
			4, Antennas (NPTEL)	3	
			5. Microwave Integrated Circuits (NPTEL)	3	

Name of the Department: Computer Science Engineering

Sl No.	Name of the candidates	Name of Supervisor	Name of Course work	Broad Area	credits
1.	Mrs. Parbati Mahanto	Prof. D.K. Singh	1. Research Methodology	Artificial Intelligence & Machine Learning	4
			2. Soft computing		3
			3. Artificial Intelligence & Machine Learning		3
			4. Data Analytics with Python (NPTEL)		3
			5. The Joy of Computing using Python (NPTEL)		3
2.	Mrs. Rupali Kumari	Dr. S.C. Dutta	1. Research Methodology	Artificial Intelligence & Machine Learning	4
			2. Soft computing		3
			3. Artificial Intelligence & Machine Learning		3
			4. Data Base Management		3
			5. Computer Networks and Internet		3
3.	Mr. Kalyan Paul	Dr. S.C. Dutta	1. Research Methodology	Artificial Intelligence & Machine Learning	4
			2. Soft computing		3
			3. Artificial Intelligence & Machine Learning		3
			4. Problem Solving Through Programming In C (NPTEL)		3
			5. The Joy of Computing using Python (NPTEL)		3
4.	Mr. Sourav Kumar	Dr. S.C. Dutta	1. Research Methodology	Cryptography	4
			2. Soft computing		3
			3. Artificial Intelligence & Machine Learning		3

	Upadhyay		4. Foundations of Cryptography		3
			5. Computer Networks and Internet		3
5.	Mr. Laljee Manjhi	Dr. Amar Prakash Sinha	1. Research Methodology		4
			2. Soft computing		3
			3. Artificial Intelligence & Machine Learning		3
			4. Foundations of Cryptography		3
			5. Computer Networks and Internet Protocol (NPTEL)		3
6.	Mr. Mantoo Kumar Gupta	Dr. S.C. Dutta	1. Research Methodology	Cryptography	4
			2. Soft computing		3
			3. Artificial Intelligence & Machine Learning		3
			4. Foundations of Cryptography		3
			5. Computer Networks and Internet Protocol (NPTEL)		3
7.	Mr. Kunal Mahto	Dr. S.C. Dutta	1. Research Methodology	Computer Networks and Cryptography	4
			2. Soft computing		3
			3. Artificial Intelligence & Machine Learning		3
			4. Foundations of Cryptography		3
			5. Computer Networks and Internet Protocol (NPTEL)		3
8.	Mr. Ramesh	Prof. D.K.	1. Research Methodology	Artificial Intelligence & Machine	4
			2. Soft computing		3

	Kumar Sharma	Singh	3. Artificial Intelligence & Machine Learning	Learning	3
			4. Problem Solving Through Programming In C (NPTEL)		3
			5. The Joy of Computing using Python (NPTEL)		3
9.	Mr. Abhimanyu Nayak	Prof. D.K. Singh	1. Research Methodology	Cryptography	4
			2. Soft computing		3
			3. Artificial Intelligence & Machine Learning		3
			4. Foundations of Cryptography		3
			5. Computer Networks and Internet Protocol		3

Name of the Department: Chemistry

Sl. No	Name of Candidate	Guide/ Co-Guide	Subject allotted	Area of Research
	Apurba	Prof (Dr) Ranjeet Kumar Singh(Guide) Dr. Arvind Kumar , Chemical Engg. (Co-Guide)	Research Methodology-**Credit4** Soft Computing-**Credit3** 1.One Compulsory course (Application of Spectroscopic techniques) -**Credit3** 2.One Optional Subject-I -**Credit3** (Environmental Chemistry / **Environmental Impact Assessment available in NPTEL**) 3.One Optional Subject-II -**Credit3**	Bio based material for textile dye removal
	Pintu Kumar Mandal	Dr. Manoj Kumar Mishra (Guide) Dr. Amit Kumar Gupta, Chemical Engg. (Co-Guide)	Research Methodology-**Credit4** Soft Computing-**Credit3** 1.One Compulsory course (Application of Spectroscopic techniques) -**Credit3** 2.One Optional Subject-I -**Credit3** (Environmental Chemistry/ **Environmental Impact Assessment available in NPTEL**) 3.One Optional Subject-II -**Credit3**	Remediation of ground water
	Anamika Lakra	Dr. Kunal Kumar (Guide) Dr. Amit Kumar Gupta, Chemical Engg. (Co-Guide)	Research Methodology-**Credit4** Soft Computing-**Credit3** 1.One Compulsory course (Application of Spectroscopic techniques) -**Credit3** 2.One Optional Subject-I -**Credit3** (Environmental Chemistry/ **Environmental Impact Assessment available in NPTEL**) 3.One Optional Subject-II -**Credit3**	Nano Technology

Name of the Department: Mathematics

Sl. No.	Name of Candidate		Subject allotted	Credits	Area of Research
	Laltu gorai	Prof. C. Thakur	1. Research Methodology 2. Soft Computing 3. Ordinary and Partial Differential Equations 4. Computational Fluid Dynamics (NPTEL) 5. Scientific Computing Using MATLAB (NPTEL)	4 3 3 3 3	Fluid Mechanics
	Dinesh Kumar Mondol	Prof. C. Thakur	1. Research Methodology 2. Soft Computing 3. Ordinary and Partial Differential Equations 4. Computational Fluid Dynamics (NPTEL) Scientific Computing Using MATLAB (NPTEL)	4 3 3 3 3	Fluid Mechanics
	Kalyani Mukharji	Prof. C. Thakur	5. Research Methodology 6. Soft Computing 7. Ordinary and Partial Differential Equations 8. Computational Fluid Dynamics (NPTEL) 9. Scientific Computing Using MATLAB (NPTEL)	4 3 3 3 3	Fluid Mechanics

(Dr. Pankaj rai)
Dean Academics

B. I. T. Sindri, Dhanbad-828123, Jharkhand
Office-Dean Academics

Over all Subject structure and credit System For Ph.D course Work (2021-22)

Category of Subject	Name	Teaching mode	Credit
Compulsory from university	Research methodology	Online/University	4
Compulsory from institute	Soft Computing	Online/CSE BIT Sindri	3
Departmental compulsory	Decided by department	Online/ Respective	3
Elective-I	Decided by department/Supervisor based on research Area	NPTEL	3
Elective-I	Decided by department/Supervisor based on research Area	NPTEL	3
		Total credit	**16**

(Dr. Pankaj rai)
Dean Academics

B. I. T. Sindri, Dhanbad-828123, Jharkhand
Office-Dean Academics

Tentative Time Table for Ph.D Course Work
Effective from 12th Jan. 2022

Day	10am.-11am	11.00AM-12.00PM	3.00pm-4.pm	4.00pm-5.00pm
Monday	RM	Soft Computing		
Tuesday	RM	Soft Computing		
Wednesday	RM	Soft Computing		
Thursday	RM	Departmental Core		
Friday	Departmental Core	Departmental Core		
Saturday				

Subject Name	Resource agency	
Research Methodology	JUT	
Soft computing	CSE-BIT Sindri	
Departmental Core	Respective department	

Note:-75 % attendance is mandatory

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