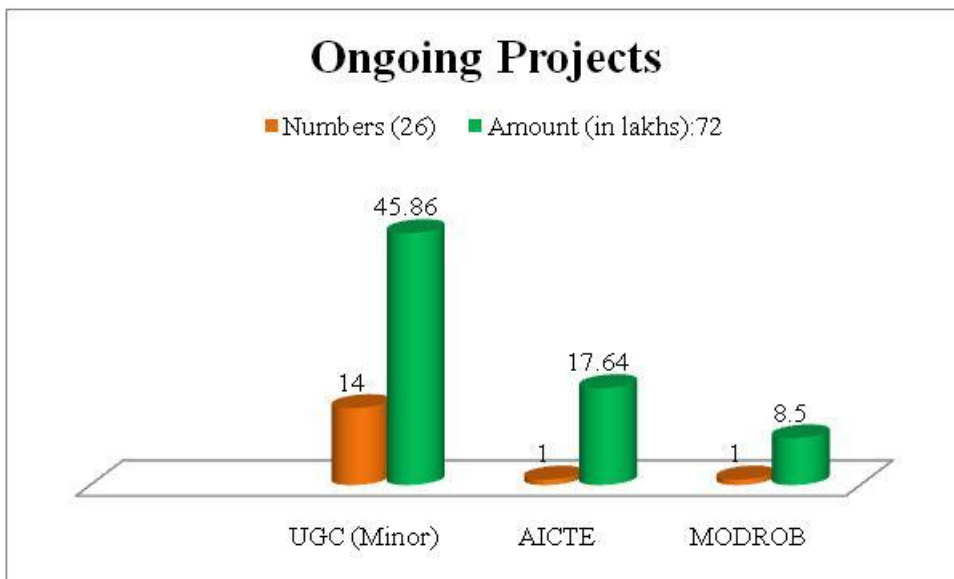
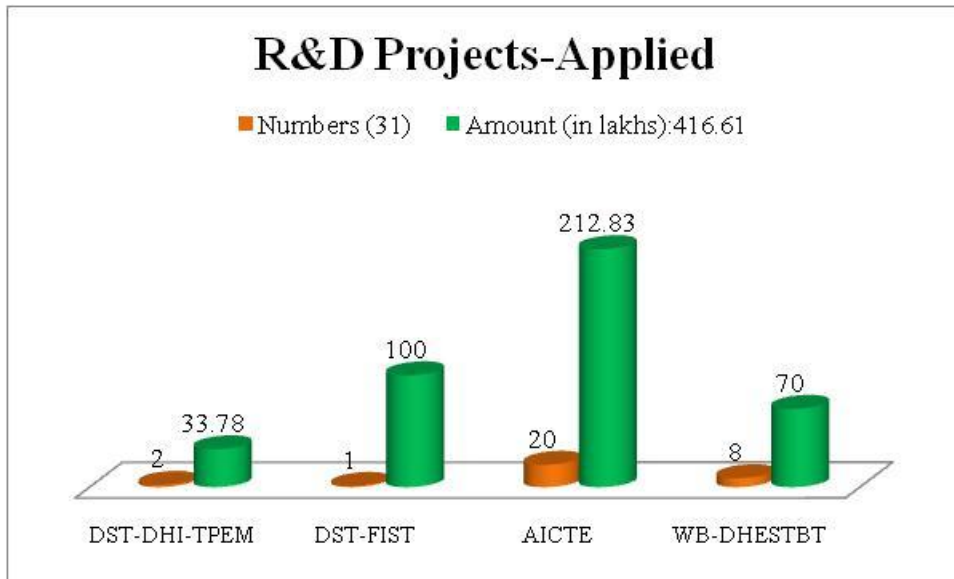


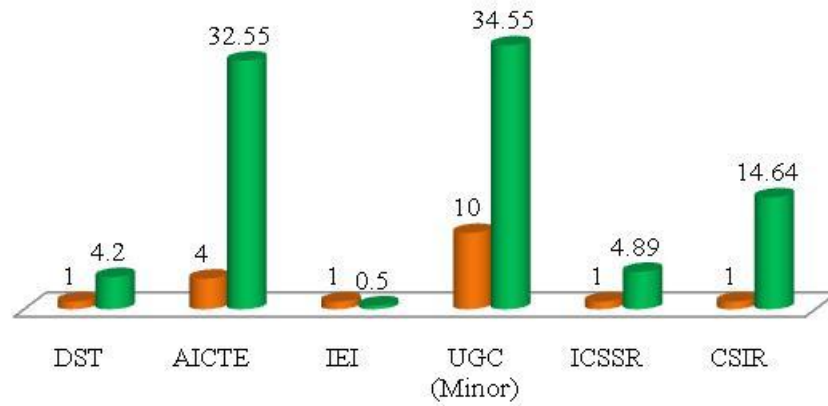
Name of the Institute: **JIS College of Engineering**

**Research & Development Initiatives (pictorially)**



### Completed R&D Projects (Past 5 years)

Numbers (6)    Amount (in lakhs):91.33



## Research & Development Initiatives (in detail)

Sl.	Title of the Project, Consultancy, Name of PI	Sponsoring agency (UGC, DST, AICTE etc.), sanction ref.	Amount, Rs.in lakhs	Status*
1	In silico design of novel molecular rectifier and spin filter through nonequilibrium Green's function technique" PI: Dr. Sabyasachi Sen	DST (FAST TRACK) [D.O. No. SR/FTP/PS-85/2009]	Rs. 4.2 lakhs	Completed
2	'In silico design of novel molecular spintronic devices through nonequilibrium Green's function technique' PI: Dr. Sabyasachi Sen	CSIR [letter No. 03(1256)/12/EMR-II Dated:06-11-2012]	Rs. 14.64 lakhs	Completed
3	Metal free ferromagnets and their potential applications as spintronic device: An in silico study PI: Dr. Sabyasachi Sen	UGC (Minor) No. PSW-190/13-14 (ERO) ID NO. SFWBUT-002 Date: 19 August 2014 -2 Sep 2014	Rs. 4.7 lakhs	Completed
4	Computational Studies on Novel Channel Materials for MOSFET Applications PI: Dr. Swagata Bhattacharya	UGC (Minor) No. PSW-189/13-14 (ERO) ID NO. SFWBUT-002 Date: 19 August 2014 -2 Sep 2014	Rs. 4.7 lakhs	Completed
5	Effect of Strained Silicon in Low Power Low Voltage High Speed Circuit Design PI: Mr. Prolay Ghosh	UGC (Minor) F.No: PSW-196/14-15 (ERO)	Rs. 4.20 lakhs	On going
6	Rural Health Care Development Using Vehicular and Sensor Network PI: Suparna Dasgupta	UGC (Minor) F.No: PSW-197/14-15	Rs. 2.85 lakhs	On going
7	Segmentation Based Clustering and Graphical Approaches for Detecting Stages of Colon Cancer PI: Ms. Debasree Mitra	UGC (Minor) F.No: PSW-198/14-15	Rs. 3.00 lakhs	On going
8	Androgen: An android approach to restore ability, productiviity and agibility of old people PI:Mr. Soham Sengupta	UGC (Minor) F.No: PSW-199/14-15	Rs. 1. 75 lakhs	On going
9	Natural language processor incorporating auto-debugger under the framework of machine intelligence. PI: Dr. Somsubhra Gupta	AICTE (RPS) No: 20/AICTE/RIFD/RPS (POLICY-1) 33/2013-14	Rs: 2.67 lakhs	Completed
10	Design & Development of a Cardiac parameter Monitoring System using common mobile phone for affordable patient care PI: Dr. Meghmala Dutta & Dr. Somsubhra Gupta	AICTE (RPS) 20/AICTE/RIFD/RPS(Policy-1)32/2013-14	Rs. 10.55 lakhs	Completed
11	Design a low cost microcontroller based wireless civil structure monitoring system. PI: Mr. Anirban Patra	Institution of Engineers <b>R.4/2/UG/12-13</b> Dt. 06.06.2012	Rs. 0.5 lakhs	Completed

12	Produce the knowledge based database of electromyography (EMG) signal to enrich the interpretation technique for different human arm movement. PI: Dr. Biswarup Neogi	AICTE (RPS) 20/AICTE/RIFD/RPS(Policy-IV)24/2012-13 dt. March 16, 2014	Rs. 11.33 lakhs	Completed
13	Methodology for unique identification using ste. Ret. Image PI: Moumita Paul	UGC (Minor) PSW -190/14-15(ERO) dt. 03.02.2015	Rs.4.7 lakhs	Ongoing
14	Modelling and validation of radio signal attitude to tropical cloud. PI: Swastika Chakraborty	UGC (Minor) PSW -193/14-15(ERO) dt. 03.02.2015	Rs.4.75 lakhs	Completed
15	Low cost RFID based automatics DAS and PD in pub transport PI: Anirban Patra	UGC (Minor) PSW -192/14-15(ERO) dt. 03.02.2015	Rs.0.8 lakhs	Completed
16	Bandwidth and gain enhancement of microstrip antenna PI: Indranath Sarkar	UGC (Minor) PSW -195/14-15(ERO) dt. 03.02.2015	Rs. 5.0 lakhs	Ongoing
17	Design approach of sophisticated computational and cyber interaction for several types of cerebral palsy patient PI: Dr. Biswarup Neogi	UGC (Minor) PSW -194/14-15(ERO) dt. 03.02.2015	Rs. 3.4 lakhs	Ongoing
18	Diagnosis of H dieses Using QRS Complex detection PI: Sayanthi Chattopadhyay	UGC (Minor) PSW -199/14-15(ERO) dt. 03.02.2015	Rs. 4.2 lakhs	Ongoing
19	FPGA Based Implementation of a MAC unit for Digital Signal Processors PI: Satrughna Singha	UGC (Minor) PSW-186/13-14 dt 02-09-2014	Rs. 4 lakhs	Ongoing
20	Design of an interhuman unimodal biometric authentication system. PI: Monalisa Dey	UGC (Minor) PSW-192/13-14 dt 02-09-2014	Rs. 3.06 lakhs	Ongoing
21	The cognitive mechatronic fire extinguisher vehicle with obstacle detection and bypass PI:Mr. Sumanta Chatterjee	UGC (Minor) PSW-187/13-14 dt 02-09-2014	Rs. 2.6 lakhs	Completed
22	Solar Photovoltaic hybridization with usual grid to compensate peak load demand at JIS College of Engineering Kalyani. PI: Rakesh Naskar,	AICTE (RPS) 20/AICTE/RIFD/RPS(Policy-IV)24/2012-13 dt. March 16, 2014	Rs. 8 lakhs	Ongoing
23	Development of Bone Paste from Waste Egg-Shell for Bone Grafting PI: Dr. Sandip Bag	UGC (Minor) PSW-191/13-14 dt 02-09-2014	Rs. 3.75 lakhs	Completed
24	Development of cost effective real time acquisition, processing, analyzing and monitoring system of bio-signals for non-invasive diagnosis and prediction of cardiovascular abnormalities. PI: Dr. Meghmala Dutta;	UGC (Minor) PSW-182/13-14 dt 02-09-2014	Rs. 4.7 lakhs	Completed
25	A spirometric study on smokers and non-smokers engineering students PI: Mr. Sauvik Das	UGC (Minor) PSW -191/14-15(ERO)dt. 03.02.2015	Rs. 4.0 lakhs	Completed
26	Synthesis of Nanocellulose from Bamboo fiber to develop polymer Nanocomposite suitable as Biodegradable Packaging Material. PI: Dr. Mahuya Das	UGC (Minor) PSW-184/13-14 dt 02-09-2014	Rs. 2.60 lakh	Ongoing
27	Study of arsenic removal from	UGC (Minor)	Rs. 2.05 lakhs	Completed

	contaminated water through solid membrane PI: Mrs. Trina Dutta	PSW-188/13-14 dt 02-09-2014		
28	Synthesis of Silver Bionanocomposit through reduction route PI: Mrs. Tanmoy Dutta	UGC (Minor) PSW-183/13-14 dt 02-09-2014	Rs. 2.50 lakhs	Completed
29	Development of database on electronic referrals for health care in West Bengal PI: Dr. Suvronil Som	UGC (Minor) PSW-185/13-14 dt 02-09-2014	Rs. 3.38 lakhs	Incomplete
30	Research Project under ICSSR PI: Dr. S. K. Dawn	ICSSR 2-154/2010-RP Dt. 25.01.2011	Rs. 4.89 lakhs	Completed
31	Integrated inventory systems with supply chain contracts constrained and featured with some realistic issues PI: Mr. Rupak Bhattacharjee	UGC (Minor) ROMRP-ERO-MATH- 2015-16-6578	Rs. 1.9 lakhs	Ongoing
32	Neural gain causes Chaos in a neural network with small-world connection PI: Dr. Santanu Mondal	UGC (Minor) ROMRP-ERO-MATH- 2015-16-64453	Rs. 1.8 lakhs	Ongoing
33	Carrier Award for Young Teachers (CAYT) PI: Dr. Biswarup Neogy	AICTE (CAYT) 11-45/RIFD/CAYT/POL- I/2014-15 dt. 16.03.2015	Rs. 3,40,000/-	Ongoing
34	Project under RPS Scheme PI: Dr. Debesh Chowdhury	AICTE (RPS) 8023/BOR/RID/RPS- 112/2008-09 dt. March 12, 2009	Rs. 3.75 Lakhs	Completed
35	Project under RPS Scheme PI: Dr. S.K.Chowdhury	AICTE (RPS) 8023/BOR/RID/RPS- 94/2007-08 dt. March 5, 2008	Rs. 5,00000/-	Completed
36	Insilico design of multifunctional spin diode with spin valve action PI: Dr. Sabyasachi Sen	AICTE (RPS) 1 – 3351581711	Rs. 17.64 lakhs	Ongling
37	Insilico design of multifunctional spintronic device and their experimental realization	DST-Nanomission	PPD submitted in March 2017 Rs. 116 lakhs	Submitted
38	DST-FIST	DST	100 lakhs	Faced the interview on 01/11/17
<b>Funding received apart from R&amp;D project grant</b>				
1	FDP PI: Dr. Suman Kr. Dawn	AICTE 25/RIFD/FDP/P(1)/2014-15 dt. 18.11.2014	Rs. 600000/-	Completed
2	Project Under MODROB PI: HOD, CSE	AICTE (MODROB) 12/AICTE/RIFD/MOD(Pol icy-4)Pvt-52/2012-13 dt. 11.07.2013	Rs. 8.90,000/-	Completed
3	Seminar Grant PI: Dr. Biswarup Neogy	AICTE 22/AICTE/RIFD/SEM/(poli cy2)22/2012-13 dt. December4, 2012	Rs. 1,25,000/-	Completed
4	Seminar Grant	AICTE	Rs.1,00,000/-	Completed

	PI: Dr. Suman Kr. Dawn	RIFD/SEM/177/2011-12 Dt. 28.02.2012		
5	Seminar Grant PI: Dr. Subrata Kumar Mitra	AICTE RIFD/SEM/50/2010-11 dt. 23.02.2011	Rs. 1,50,000/-	Completed
6	Seminar Grant PI: Dr. Meghamala Datta	AICTE RIFD/SEM/49/2010-11 dt. 23.02.2011	Rs. 1,50,000/-	Completed
7	Seminar Grant PI: Dr. Sabyasachi Sen	AICTE RIFD/SEM/67/2011-12 Dt. 30.11.2011	Rs.40,000/-	Completed
8	Seminar Grant PI: Dr. Somsubhra Gupta	AICTE 1-4/RID/SEM/99/09/10 Dt. 5.01.2010	Rs. 37,500/-	Completed
9	Seminar Grant PI: Mr. Nilotpal Manna	AICTE 1-4/RID/SEM/100/09/10 Dt. 5.01.2010	Rs. 30,000/-	Completed
10	Project under MODROB	AICTE (MODROB) 8024/RID/BOR/MOD/926/ 9/10 dt. 12.02.2010	Rs. 14,90,000/-	Completed
11	Project under EDC: Plan Grant PI: Ms. Sila S. Ghosh	AICTE 8022/RID/EDC (91.)/2008- 09 dt. March 31, 2009	Rs. 6,92,000/-	Completed
12	Project under IIPC: Plan Grant PI: Ms. Sila S. Ghosh	AICTE 8020/RID/IIPC(7)/2008-09 dt. December 29, 2008	Rs. 8,00000/-	Completed
13	Project Under MODROB PI: HOD, EE	AICTE (MODROB) 8024/RID/BOR/MOD- 37/2008-09 dt. December4, 2008	Rs. 8,45,000/-	Completed
14	Project Under MODROB PI: HOD, IT	AICTE (MODROB) 8023/RID/BOR/MOD- 414/2007-08 dt. June 20, 2008	Rs. 11,00000/-	Completed
15	Removal Of Old Oscilloscope With Featured Multifunction Oscilloscope For Communication Engineering Laboratory PI:HOD, ECE	1- 3351888187	Rs. 8.5 lakhs	On going
16	In silico design of spin operated molecular electronic devices and quantum logic gates along with their experimental realization PI. Dr. Sabyasachi Sen, Dept. of Physics	WB-DHESTBT	Rs. 16,07,300.00	Submitted in 2017
17	Device and circuit simulation of novel channel materials and architectures: A computational study in nanoelectronics PI: Dr. Swagata Bhattacharya, Dept. of Physics	WB-DHESTBT	Rs. 15 lakhs	Submitted in 2017
18	Base pair opening DNA PI: Dr. Subhamoy Singha Roy Dept. of Physics	WB-DHESTBT	Rs. 14 lakhs	Submitted in 2017
19	Biodegradable polymeric scaffolds for chronic wound healing management PI: Dr. Sandip Bag, Dept. of Biomedical Engineering	WB-DHESTBT	Rs. 12 lakhs	Submitted in 2017

20	Intelligent Systems Modeling for Diagnosis and Risk Analysis of Breast Cancer using Interval Type-2 Fuzzy Systems. PI. Dr. Debasish Mazumder, Dept. of Mathematics	WB-DHESTBT	Rs.7 lakhs	Submitted in 2017
21	WBGO: Complete Solution of Government e-portal Accessibility <i>PI. Dr. Dharampal Singh, Dept. of CSE</i>	WB-DHESTBT	Rs.13 lakhs	Submitted in 2017
22	Vehinfo: A complete digitized system with app facility towards transparent vehicle information enabling smart monitoring system, PI. Mr. Sudipta Sahana, CSE	WB-DHESTBT	Rs.11 lakhs	Submitted in 2017

**Project Proposal under  
DHI-TPEM Technology Platform for Electric Mobility (TPEM)**

SL NO.	FUNDING AGENCY	PROJECT AREA	TITLE OF THE PROJECT	PI	CO PI	AMOUNT (IN Lacs)	STATUS
23	DST	Project 2.2. Technology Pilot for DC Charging technologies for low voltage vehicles (2W, 3W & small cars)	Development of grid connected efficient DC battery charger for low voltage Electric Vehicle Application	Mr. Biswamoy Pal	Dr. Papun Biswas	30.25	Submitted in 2017
24		Project 4.1. Electric Two Wheeler (e-2W) Reference Vehicle	Design of a unique model of Electric Two Wheeler introducing fuel cell as Reference Vehicle.	Mr. Rakesh Naskar	Dr. Papun Biswas	3.53	Submitted in 2017

## AICTE AQIS project submission in 2017 (by 30/11/17)

Sl	AQIS Application Id	Department	Status	AQIS Schemes	Title	Applied Amount	Faculty Id	Title	Name
1	1-3567731106	MCA	Submitted	FDP – Faculty Development Program	Faculty Development Program on Total Personality Development with Advanced Teaching and Learning	631,000	1-466282012	Mr.	RAJDEEP CHOWDHURY
2	1-3571189924	MCA	Submitted	STTP – Short Term Training Program	Information Security in Digital India – Peril, Challenges and Prospects	480,000	1-466282012	Mr.	RAJDEEP CHOWDHURY
3	1-3565949864	MBA	Submitted	FDP – Faculty Development Program	Faculty Development Programme on Teaching and Learning Methods	551,000	1-468086272	Mr.	AVIK SANYAL
4	1-3569058404	MBA	Submitted	STTP – Short Term Training Program	Short Term Training Programme on “Office Management for Administrative and Technical Staff”	495,000	1-468085645	Ms.	SWATI Pal
5	1-3565413746	MBA	Submitted	FDP – Faculty Development Program	Faculty Development Programme on Research Methodology	620,000	1-467748225	Mr.	SUBHAJIT CHOWDHURY
6	1-3567290733	EE	Submitted	STTP – Short Term Training Program	Industrial Automation (Engineering)	485,000	1-482222515	Dr.	PAPUN BISWAS
7	1-3567135340	EE	Submitted	GOC- Grant for Organizing Conference	International Conference on Nanotechnology and Nanomaterials for Energy and Environment (ICNNEE2019)	500,000	1-482222515	Dr.	PAPUN BISWAS
8	1-3566942693	EE	Submitted	PRERANA- Programme Centre for SC/ST Students	PRERANA	976,000	1-482222515	Dr.	PAPUN BISWAS
9	1-3566437754	EE	Submitted	MODROBS - Modernisation & Removal of Obsolescence	Modernization of Electrical Power Systems Laboratory with Transmission Line Analyzer & Campus SCADA	1,905,882	1-482222515	Dr.	PAPUN BISWAS
10	1-3566131191	ECE	Submitted	SPDP- Skill and Personality	Communication and Personality Development Scheme	2,490,900	1-492799085	Dr.	ANINDYA GUHA



				Development Programme Centre for SC/ST Students	for SC/ST students				
11	1-3565604634	ECE	Submitted	RPS – Research Promotion Scheme	BANDWIDTHENHANCEMENT OF PATCH ANTENNA	2,470,588	1-483753670	Dr.	INDRANATH SARKAR
12	1-3545876896	EE	Submitted	RPS – Research Promotion Scheme	Design & Development of Green Campus	2,500,000	1-482222515	Dr.	PAPUN BISWAS
13	1-3565413074	ECE	Submitted	STTP – Short Term Training Program	Digitization to Digitalization: A Data Analytics Approach	485,000	1-486297727	Dr.	DEBASISH MAJUMDER
14	1-3567816972	EE	Submitted	FDP – Faculty Development Program	Refreshers course on Avant-garde theoretical modelling state of the art experimental techniques and in Nanoelectronic devices	585,000	1-486298169	Dr.	SABYASACHI SEN
15	1-3569146261	ME	Submitted	RPS – Research Promotion Scheme	Optimization of process parameters of welded Al-alloy by Activated TIG Welding process	2,058,825	1-3569058473	Dr.	SANDIP GHOSH
16	1-3570638824	IT	Submitted	STTP – Short Term Training Program	Faculty Development Programme on “ Cloud Computing and IoT”	480,000	1-485773007	Mr.	SOUMYABRATA Saha
17	1-3570336834	IT	Submitted	MODROBS - Modernisation & Removal of Obsolescence	Open source software lab to overcome research challenges in engineering applications	1,998,823	1-480306533	Dr.	DHARMPAL SINGH
18	1-3570910605	ECE	Submitted	FDP – Faculty Development Program	Faculty Development Programme on “Six Sigma”	650,000	1-3570823955	Dr.	BASANTA BHOWMIK
19	1-3571159734	CE	Submitted	STTP – Short Term Training Program	Environmental Crisis and Sustainable Development	455,000	1-493966373	Dr.	TRINA DUTTA
20	1-3571321373	CSE	Submitted	STTP – Short Term Training Program	One week workshop on Cloud Computing and Big Data for	465,000	1-480306533	Dr.	DHARMPAL SINGH