

## Research Grant

2020-2024 June to July

| Sl No. | Name of the Project/<br>Endowments,<br>Chairs                     | Name of the Principal Investigator/<br>Co Investigator | Name of the Funding agency | Type (Government/Non-Government) | Department of Principal Investigator/<br>Co Investigator | Year of Award | Year of Completion of the project | Funds provided (INR in lakhs) | Status    |
|--------|-------------------------------------------------------------------|--------------------------------------------------------|----------------------------|----------------------------------|----------------------------------------------------------|---------------|-----------------------------------|-------------------------------|-----------|
| 1      | AICTE IDEA LAB                                                    |                                                        | AICTE                      | Govt.                            |                                                          |               | 2022                              | 50                            |           |
| 2      | AICTE-Inter-Institutional Biomedical Innovations Programme (IBIP) | DR. SANDIP BAG                                         | AICTE                      | Govt.                            | BME                                                      | 2024          | 2027                              | 10                            | Ongoing   |
| 3      | Industry 4.0 and Smart Systems                                    | Dr. Jui Pattnayak                                      | SERB-DST                   | Govt.                            | IT                                                       | 2024          | 2024                              | 2                             | Completed |
| 4      | STTP                                                              | Dr. Debasish Majumder                                  | AICTE                      | Government of India              | Mathematics                                              | 2019          | 2021                              | 3                             | Completed |
| 5      | STTP                                                              | Dr. Swagata Bhattacharjee                              | AICTE                      | Government of India              | Physics                                                  | 2020-21       | 2021                              | 3.33                          | Completed |

|   |                                                                                                                                |                      |                                  |            |                                           |      |      |     |          |
|---|--------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------|------------|-------------------------------------------|------|------|-----|----------|
| 6 | Third Regional Conclave of Students' Chapters (Eastern Region) on Green Sustainability Development in Engineering & Technology | Dr. Indranath Sarkar | Institution of Engineers (India) | Government | Electronics and Communication Engineering | 2024 | 2024 | 0.5 | Complete |
|---|--------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------|------------|-------------------------------------------|------|------|-----|----------|

2019-2020 June to July

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|--------|-----------------------------------------|------------------------------------------------------|------------------------------------------------------|-----------------------------------|--------------------------------------------------------|---------------|-----------------------------------|-------------------------------|---------|
| 1      | Corona Protective Gloves                | Dr. Biswarup Neogi                                   | National Research and Development Corporation (NRDC) | Industry                          | ECE                                                    | 2020          | Ongoing                           | 2                             | 3 Years |

|   |                                                                                                                        |                                       |           |            |              |      |         |       |         |
|---|------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------|------------|--------------|------|---------|-------|---------|
| 2 | Development of Operational Strategies for E-Rickshaws for Improving Air Quality on Roads in Urban Areas of West Bengal | Dr. Debasish Das                      | WBDST-BT  | Government | CE           | 2020 | Ongoing | 11.95 | 3 Years |
| 3 | RPS                                                                                                                    | Dr. Papun Biswas                      | RPS-AICTE | Government | EE           | 2019 | Ongoing | 10.25 | 3 Years |
| 4 | DST-FIST                                                                                                               | Dr. Sabyasachi Sen & Dr. Papun Biswas | DST       | Government | PHYSICS & EE | 2019 | Ongoing | 60    | 5 Years |
| 5 | IEI                                                                                                                    | PI: Dr. Biswarup Neogi                | IEI       | Private    | ECE          | 2019 | Ongoing | 0.2   | 1 Year  |

|   |                                                                                                                                   |                             |                                           |            |             |            |         |       |         |
|---|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------|------------|-------------|------------|---------|-------|---------|
| 6 | A Project proposal on Utilization of Bio Gas as an alternative cooking gas(LPG) at Canteen of JIS College of Engineering, Kalyani | PI: Mr. Sudipta Sahana      | UBA – Unnat Bharat Abhiyan 1 - 3351888902 | Government | EE          | 2018       | Ongoing | 0.5   | 5 Years |
| 7 | Insilico design of multifunctional spin diode with spin valve action                                                              | PI: Dr. Sabyasachi Sen      | AICTE (RPS) 1 - 3351581711                | Government | PHYSICS     | 2017       | Ongoing | 17.68 | 3 Years |
| 8 | 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   | Government | MATHEMATICS | 2017       | Ongoing | 1.9   | 2 Years |
| 9 | Sanitizing Gloves                                                                                                                 | PI. Dr. Biswarup Neogi      | S&H Manufacturing Co.                     | Industry   | ECE         | 2020 (Feb) | Ongoing | 2.83  | 3 Years |

|           |                                                                           |                                                             |                                   |                                          |                                                               |                      |                                          |                                      |               |
|-----------|---------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------|------------------------------------------|---------------------------------------------------------------|----------------------|------------------------------------------|--------------------------------------|---------------|
| 10        | PV Solar Power operated auto sanitizing chamber fitted with UV protection | Dr. Sanip Bag                                               | Alvys Tyre Ltd                    | Industry                                 | BME                                                           | 2019 (Feb)           | Ongoing                                  | 2.57                                 | 3 Years       |
| 11        | Project Hate-Bajare.                                                      | Dr. Kaustav Das                                             | Eastern Rubber Industries         | Industry                                 | IT                                                            | 2020 (Feb)           | Ongoing                                  | 2.36                                 | 3 Years       |
| 12        | Green Building design                                                     | Head-CE                                                     | IDEAAL CONSTRUCTION               | Industry                                 | CE                                                            | 2019 (Feb)           | Ongoing                                  | 1.5                                  | 3 Years       |
| 13        | Solar panels at the rooftop                                               | Head_EE                                                     | Meghna Construction               | Industry                                 | CE                                                            | 2019 (Feb)           | Ongoing                                  | 2.16                                 | 3 Years       |
| 14        | Herbal Santizer                                                           | Head-Chem                                                   | B.N. Entreprise                   | Industry                                 | CHEM                                                          | 2020 (Feb)           | Ongoing                                  | 2.3                                  | 3 Years       |
| 15        | Herbal Santizer                                                           | Head_BME                                                    | Link system                       | Industry                                 | BME                                                           | 2020 (Feb)           | Ongoing                                  | 1.2                                  | 3 Years       |
| 16        | AICTE-RPS                                                                 | Sandip Ghosh                                                | AICTE                             | Government                               | ME                                                            | 2020 (June)          | Ongoing                                  | 12.85                                | 3 Years       |
| TOTAL     |                                                                           |                                                             |                                   |                                          |                                                               |                      |                                          | 132.25                               |               |
| 2018-2019 |                                                                           |                                                             |                                   |                                          |                                                               |                      |                                          |                                      |               |
|           | <b>Name of the Project/<br/>Endowments,<br/>Chairs</b>                    | <b>Name of the Principal Investigator / Co Investigator</b> | <b>Name of the Funding agency</b> | <b>Type (Government/Non-Government )</b> | <b>Department of Principal Investigator / Co Investigator</b> | <b>Year of Award</b> | <b>Year of Completion of the project</b> | <b>Funds provided (INR in lakhs)</b> | <b>Status</b> |

|   |                                                                                                                                   |                                       |                                           |            |              |      |         |       |         |
|---|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------|------------|--------------|------|---------|-------|---------|
| 1 | DST-FIST                                                                                                                          | Dr. Sabyasachi Sen & Dr. Papun Biswas | DST                                       | Government | PHYSICS & EE | 2019 | Ongoing | 60    | 5 Years |
| 2 | IEI                                                                                                                               | PI: Dr. Biswarup Neogi                | IEI                                       | Private    | ECE          | 2019 | Ongoing | 0.2   | 1 Year  |
| 3 | A Project proposal on Utilization of Bio Gas as an alternative cooking gas(LPG) at Canteen of JIS College of Engineering, Kalyani | PI: Mr. Sudipta Sahana                | UBA – Unnat Bharat Abhiyan 1 - 3351888902 | Government | EE           | 2018 | Ongoing | 0.5   | 5 Years |
| 4 | Insilico design of multifunctional spin diode with spin valve action                                                              | PI: Dr. Sabyasachi Sen                | AICTE (RPS) 1 - 3351581711                | Government | PHYSICS      | 2017 | Ongoing | 17.68 | 3 Years |

|           |                                                                                                              |                             |                                          |            |             |            |         |       |         |
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| 5         | 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  | Government | MATHEMATICS | 2017       | Ongoing | 1.9   | 2 Years |
| 6         | Neural gain causes Chaos in a neural network with small-world connection                                     | PI: Dr. Santanu Mondal      | UGC (Minor) ROMRP-ERO-MATH-2015-16-64453 | Government | MATHEMATICS | 2016       | Ongoing | 1.8   | 2 Years |
| 7         | PV Solar Power operated auto sanitizing chamber fitted with UV protection                                    | Dr. Sandip Bag              | Alvys Tyre Ltd                           | Industry   | BME         | 2019 (Feb) | Ongoing | 2.57  | 3 Years |
| 8         | Green Building design                                                                                        | Head-CE                     | IDEAAL CONSTRUCTION                      | Industry   | CE          | 2019 (Feb) | Ongoing | 1.5   | 3 Years |
| 9         | Solar panels at the rooftop                                                                                  | Head_EE                     | Meghna Construction                      | Industry   | EE          | 2019 (Feb) | Ongoing | 2.16  | 3 Years |
| TOTAL     |                                                                                                              |                             |                                          |            |             |            |         | 88.31 |         |
| 2017-2018 |                                                                                                              |                             |                                          |            |             |            |         |       |         |

|   | <b>Name of the Project/<br/>Endowments,<br/>Chairs</b>                                                                            | <b>Name of the Principal Investigator / Co Investigator</b> | <b>Name of the Funding agency</b>         | <b>Type (Government/Non-Government )</b> | <b>Department of Principal Investigator / Co Investigator</b> | <b>Year of Award</b> | <b>Year of Completion of the project</b> | <b>Funds provided (INR in lakhs)</b> | <b>Status</b> |
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| 1 | A Project proposal on Utilization of Bio Gas as an alternative cooking gas(LPG) at Canteen of JIS College of Engineering, Kalyani | PI: Mr. Sudipta Sahana                                      | UBA – Unnat Bharat Abhiyan 1 - 3351888902 | Government                               | EE                                                            | 2018                 | Ongoing                                  | 0.5                                  | 5 Years       |
| 2 | Insilico design of multifunctional spin diode with spin valve action                                                              | PI: Dr. Sabyasachi Sen                                      | AICTE (RPS) 1 - 3351581711                | Government                               | PHYSICS                                                       | 2017                 | Ongoing                                  | 17.68                                | 3 Years       |
| 3 | Neural gain causes Chaos in a neural network with small-world connection                                                          | PI: Dr. Santanu Mondal                                      | UGC (Minor) ROMRP-ERO-MATH-2015-16-64453  | Government                               | MATHEMATICS                                                   | 2016                 | Ongoing                                  | 1.8                                  | 2 Years       |

|   |                                                                                                                  |                            |                                                           |            |     |      |      |     |  |
|---|------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------|------------|-----|------|------|-----|--|
| 4 | Carrier Award for Young Teachers (CAYT)                                                                          | PI: Dr. Biswarup Neogy     | AICTE (CAYT) 11-45/RIFD/CAYT/POL-I/2014-15 dt. 16.03.2015 | Government | ECE | 2015 | 2018 | 3.4 |  |
| 5 | A spirometric study on smokers and non-smokers engineering students                                              | PI: Mr. Souvik Das         | UGC (Minor) PSW - 191/14-15(ERO)dt. 03.02.2015            | Government | BME | 2015 | 2018 | 4   |  |
| 6 | Diagnosis of Heart Diseases Using QRS Complex detection                                                          | PI: Sayanthi Chattopadhyay | UGC (Minor) PSW - 199/14-15(ERO) dt. 03.02.2015           | Government | EIE | 2015 | 2018 | 4.2 |  |
| 7 | 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           | Government | ECE | 2015 | 2018 | 3.4 |  |
| 8 | Bandwidth and gain enhancement of microstrip antenna                                                             | PI: Indranath Sarkar       | UGC (Minor) PSW - 195/14-15(ERO) dt. 03.02.2015           | Government | ECE | 2015 | 2018 | 5   |  |

|    |                                                                                             |                          |                                                 |            |     |      |      |      |  |
|----|---------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------|------------|-----|------|------|------|--|
| 9  | 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 | Government | ECE | 2015 | 2018 | 0.8  |  |
| 10 | Modelling and validation of radio signal attitude to tropical cloud.                        | PI: Swastika Chakraborty | UGC (Minor) PSW - 193/14-15(ERO) dt. 03.02.2015 | Government | ECE | 2015 | 2018 | 4.75 |  |
| 11 | Methodology for unique identification using ste. Ret. Image                                 | PI: Moumita Paul         | UGC (Minor) PSW - 190/14-15(ERO) dt. 03.02.2015 | Government | ECE | 2015 | 2018 | 4.7  |  |
| 12 | Androgen: An android approach to restore ability, productivity and agility of old people    | PI: Mr. Soham Sengupta   | UGC (Minor) F.No: PSW- 199/14-15                | Government | IT  | 2015 | 2018 | 1.75 |  |
| 13 | Segmentation Based Clustering and Graphical Approaches for Detecting Stages of Colon Cancer | PI: Ms. Debasree Mitra   | UGC (Minor) F.No: PSW- 198/14-15                | Government | CSE | 2015 | 2018 | 3    |  |

|    |                                                                                                                                                                                            |                        |                                            |            |     |      |  |      |         |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------|------------|-----|------|--|------|---------|
| 14 | Rural Health Care Development Using Vehicular and Sensor Network                                                                                                                           | PI: Suparna Dasgupta   | UGC (Minor)<br>F.No: PSW-197/14-15         | Government | IT  | 2015 |  | 2.85 |         |
| 15 | Effect of Strained Silicon in Low Power Low Voltage High Speed Circuit Design                                                                                                              | PI: Mr. Prolay Ghosh   | UGC (Minor)<br>F.No: PSW-196/14-15 (ERO)   | Government | IT  | 2015 |  | 4.2  |         |
| 16 | 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)<br>PSW-182/13-14 dt 02-09-2014 | Government | BME | 2014 |  | 4.7  | 2 Years |

|    |                                                                                                   |                        |                                                                                       |            |           |      |  |      |         |
|----|---------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------|------------|-----------|------|--|------|---------|
| 17 | 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                                               | Government | BME       | 2014 |  | 3.75 | 2 Years |
| 18 | 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 | Government | Physics   | 2017 |  | 4.7  | 2 Years |
| 19 | 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                                               | Government | CA        | 2014 |  | 3.38 | 2 Years |
| 20 | Synthesis of Silver Bionanocomposit it through reduction route                                    | PI: Mr. Tanmoy Dutta   | UGC (Minor) PSW-183/13-14 dt 02-09-2014                                               | Government | CHEMISTRY | 2014 |  | 2.5  | 2 Years |

|    |                                                                                        |                           |                                         |            |           |      |  |      |         |
|----|----------------------------------------------------------------------------------------|---------------------------|-----------------------------------------|------------|-----------|------|--|------|---------|
| 21 | Study of arsenic removal from contaminated water through solid membrane                | PI: Mrs. Trina Dutta      | UGC (Minor) PSW-188/13-14 dt 02-09-2014 | Government | CHEMISTRY | 2014 |  | 2.05 | 2 Years |
| 22 | The cognitive mechatronic fire extinguisher vehicle with obstracle detection an bypass | PI:Mr. Sumanta Chatterjee | UGC (Minor) PSW-187/13-14 dt 02-09-2014 | Government | CSE       | 2014 |  | 2.6  | 2 Years |
| 23 | Design of an interhuman unimodal biometric authentication system.                      | PI: Monalisa Dey          | UGC (Minor) PSW-192/13-14 dt 02-09-2014 | Government | CSE       | 2014 |  | 3.06 | 2 Years |
| 24 | FPGA Based Implementation of a MAC unit for Digital Signal Processors                  | PI: Satrughna Singha      | UGC (Minor) PSW-186/13-14 dt 02-09-2014 | Government | CSE       | 2014 |  | 4    | 2 Years |

|    |                                                                                                   |                              |                                                                                         |            |         |      |  |     |         |
|----|---------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------|------------|---------|------|--|-----|---------|
| 25 | 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 | Government | PHYSICS | 2014 |  | 4.7 | 2 Years |
| 26 | 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 | Government | PHYSICS | 2014 |  | 4.7 | 2 Years |

TOTAL

110.17

2016-2017

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|   |                                                                                                                  |                            |                                                           |            |     |      |      |     |  |
|---|------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------|------------|-----|------|------|-----|--|
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| 6 | Bandwidth and gain enhancement of microstrip antenna                                                             | PI: Indranath Sarkar       | UGC (Minor) PSW - 195/14-15(ERO) dt. 03.02.2015           | Government | ECE | 2015 | 2018 | 5   |  |

|    |                                                                                             |                          |                                                 |            |     |      |      |      |  |
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| 11 | Segmentation Based Clustering and Graphical Approaches for Detecting Stages of Colon Cancer | PI: Ms. Debasree Mitra   | UGC (Minor) F.No: PSW- 198/14-15                | Government | CSE | 2015 | 2018 | 3    |  |

|    |                                                                                                                                                                                            |                        |                                            |            |     |      |  |      |         |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------|------------|-----|------|--|------|---------|
| 12 | Rural Health Care Development Using Vehicular and Sensor Network                                                                                                                           | PI: Suparna Dasgupta   | UGC (Minor)<br>F.No: PSW-197/14-15         | Government | IT  | 2015 |  | 2.85 |         |
| 13 | Effect of Strained Silicon in Low Power Low Voltage High Speed Circuit Design                                                                                                              | PI: Mr. Prolay Ghosh   | UGC (Minor)<br>F.No: PSW-196/14-15 (ERO)   | Government | IT  | 2015 |  | 4.2  |         |
| 14 | 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)<br>PSW-182/13-14 dt 02-09-2014 | Government | BME | 2014 |  | 4.7  | 2 Years |

|    |                                                                                                   |                        |                                                                                       |            |           |      |  |      |         |
|----|---------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------|------------|-----------|------|--|------|---------|
| 15 | 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                                               | Government | BME       | 2014 |  | 3.75 | 2 Years |
| 16 | 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 | Government | Physics   | 2017 |  | 4.7  | 2 Years |
| 17 | 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                                               | Government | CA        | 2014 |  | 3.38 | 2 Years |
| 18 | Synthesis of Silver Bionanocomposit it through reduction route                                    | PI: Mr. Tanmoy Dutta   | UGC (Minor) PSW-183/13-14 dt 02-09-2014                                               | Government | CHEMISTRY | 2014 |  | 2.5  | 2 Years |

|    |                                                                                        |                           |                                         |            |           |      |  |      |         |
|----|----------------------------------------------------------------------------------------|---------------------------|-----------------------------------------|------------|-----------|------|--|------|---------|
| 19 | Study of arsenic removal from contaminated water through solid membrane                | PI: Mrs. Trina Dutta      | UGC (Minor) PSW-188/13-14 dt 02-09-2014 | Government | CHEMISTRY | 2014 |  | 2.05 | 2 Years |
| 20 | The cognitive mechatronic fire extinguisher vehicle with obstracle detection an bypass | PI:Mr. Sumanta Chatterjee | UGC (Minor) PSW-187/13-14 dt 02-09-2014 | Government | CSE       | 2014 |  | 2.6  | 2 Years |
| 21 | Design of an interhuman unimodal biometric authentication system.                      | PI: Monalisa Dey          | UGC (Minor) PSW-192/13-14 dt 02-09-2014 | Government | CSE       | 2014 |  | 3.06 | 2 Years |
| 22 | FPGA Based Implementation of a MAC unit for Digital Signal Processors                  | PI: Satrughna Singha      | UGC (Minor) PSW-186/13-14 dt 02-09-2014 | Government | CSE       | 2014 |  | 4    | 2 Years |

|    |                                                                                                                     |                                              |                                                                                         |            |          |      |  |       |         |
|----|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------|------------|----------|------|--|-------|---------|
| 23 | 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 | Government | PHYSICS  | 2014 |  | 4.7   | 2 Years |
| 24 | 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 | Government | PHYSICS  | 2014 |  | 4.7   | 2 Years |
| 25 | 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/RI FD/RPS (Policy-1)32/2013-14                                     | Government | BME & IT | 2013 |  | 10.55 | 3 Years |

|    |                                                                                                                                                |                         |                                                                          |            |     |      |  |       |         |
|----|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------|------------|-----|------|--|-------|---------|
| 26 | 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)<br>20/AICTE/RIFD/RPS(Policy-IV)24/2012-13 dt. March 16, 2014 | Government | ECE | 2013 |  | 11.33 | 3 Years |
| 27 | Solar Photovoltaic hybridization with usual grid to compensate peak load demand at JIS College of Engineering Kalyani.                         | PI: Rakesh Naskar       | AICTE (RPS)<br>20/AICTE/RIFD/RPS(Policy-IV)24/2012-13 dt. March 16, 2014 | Government | EE  | 2013 |  | 8     | 3 Years |
| 28 | Natural language processor incorporating auto-debugger under the framework of machine intelligence.                                            | PI: Dr. Somsubhra Gupta | AICTE (RPS)<br>No: 20/AICTE/RIFD/RPS (POLICY-1) 33/2013-14               | Government | IT  | 2013 |  | 2. 67 | 3 Years |

| 29        | 'In silico design of novel molecular spintronic devices through nonequilibrium Green's function technique' | PI: Dr. Sabyasachi Sen                               | CSIR<br>[letter No. 03(1256)/12/EMR-II<br>Dated:06-11-2012] | Government                       | Physics                                                | 2012          |                                   | 14.64                         | 3 Years |
|-----------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------|----------------------------------|--------------------------------------------------------|---------------|-----------------------------------|-------------------------------|---------|
| TOTAL     |                                                                                                            |                                                      |                                                             |                                  |                                                        |               |                                   | 128.51                        |         |
| 2015-2016 |                                                                                                            |                                                      |                                                             |                                  |                                                        |               |                                   |                               |         |
|           | Name of the Project/<br>Endowments, Chairs                                                                 | Name of the Principal Investigator / Co Investigator | Name of the Funding agency                                  | Type (Government/Non-Government) | Department of Principal Investigator / Co Investigator | Year of Award | Year of Completion of the project | Funds provided (INR in lakhs) | Status  |
| 1         | Neural gain causes Chaos in a neural network with small-world connection                                   | PI: Dr. Santanu Mondal                               | UGC (Minor) ROMRP-ERO-MATH-2015-16-64453                    | Government                       | MATHEMATICS                                            | 2016          | Ongoing                           | 1.8                           | 2 Years |
| 2         | Carrier Award for Young Teachers (CAYT)                                                                    | PI: Dr. Biswarup Neogy                               | AICTE (CAYT) 11-45/RIFD/CAYT/POL-I/2014-15 dt. 16.03.2015   | Government                       | ECE                                                    | 2015          | 2018                              | 3.4                           |         |

|   |                                                                                                                  |                            |                                                 |            |     |      |      |     |  |
|---|------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------|------------|-----|------|------|-----|--|
| 3 | A spirometric study on smokers and non-smokers engineering students                                              | PI: Mr. Souvik Das         | UGC (Minor) PSW - 191/14-15(ERO)dt. 03.02.2015  | Government | BME | 2015 | 2018 | 4   |  |
| 4 | Diagnosis of H dieses Using QRS Complex detection                                                                | PI: Sayanthi Chattopadhyay | UGC (Minor) PSW - 199/14-15(ERO) dt. 03.02.2015 | Government | EIE | 2015 | 2018 | 4.2 |  |
| 5 | 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 | Government | ECE | 2015 | 2018 | 3.4 |  |
| 6 | Bandwidth and gain enhancement of microstrip antenna                                                             | PI: Indranath Sarkar       | UGC (Minor) PSW - 195/14-15(ERO) dt. 03.02.2015 | Government | ECE | 2015 | 2018 | 5   |  |
| 7 | 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 | Government | ECE | 2015 | 2018 | 0.8 |  |

|    |                                                                                             |                          |                                                 |            |     |      |      |      |  |
|----|---------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------|------------|-----|------|------|------|--|
| 8  | Modelling and validation of radio signal attitude to tropical cloud.                        | PI: Swastika Chakraborty | UGC (Minor) PSW - 193/14-15(ERO) dt. 03.02.2015 | Government | ECE | 2015 | 2018 | 4.75 |  |
| 9  | Methodology for unique identification using ste. Ret. Image                                 | PI: Moumita Paul         | UGC (Minor) PSW - 190/14-15(ERO) dt. 03.02.2015 | Government | ECE | 2015 | 2018 | 4.7  |  |
| 10 | Androgen: An android approach to restore ability, productivity and agility of old people    | PI: Mr. Soham Sengupta   | UGC (Minor) F.No: PSW-199/14-15                 | Government | IT  | 2015 | 2018 | 1.75 |  |
| 11 | Segmentation Based Clustering and Graphical Approaches for Detecting Stages of Colon Cancer | PI: Ms. Debasree Mitra   | UGC (Minor) F.No: PSW-198/14-15                 | Government | CSE | 2015 | 2018 | 3    |  |
| 12 | Rural Health Care Development Using Vehicular and Sensor Network                            | PI: Suparna Dasgupta     | UGC (Minor) F.No: PSW-197/14-15                 | Government | IT  | 2015 |      | 2.85 |  |

|    |                                                                                                                                                                                            |                        |                                               |            |     |      |  |      |         |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------|------------|-----|------|--|------|---------|
| 13 | Effect of Strained Silicon in Low Power Low Voltage High Speed Circuit Design                                                                                                              | PI: Mr. Prolay Ghosh   | UGC (Minor)<br>F.No: PSW-196/14-15<br>(ERO)   | Government | IT  | 2015 |  | 4.2  |         |
| 14 | 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)<br>PSW-182/13-14 dt<br>02-09-2014 | Government | BME | 2014 |  | 4.7  | 2 Years |
| 15 | Development of Bone Paste from Waste Egg Shell for Bone Grafting                                                                                                                           | PI: Dr. Sandip Bag     | UGC (Minor)<br>PSW-191/13-14 dt<br>02-09-2014 | Government | BME | 2014 |  | 3.75 | 2 Years |

|    |                                                                                                   |                        |                                                                                         |            |           |      |  |      |         |
|----|---------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------|------------|-----------|------|--|------|---------|
| 16 | 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 | Government | Physics   | 2017 |  | 4.7  | 2 Years |
| 17 | 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                                                 | Government | CA        | 2014 |  | 3.38 | 2 Years |
| 18 | Synthesis of Silver Bionanocompos it through reduction route                                      | PI: Mr. Tanmoy Dutta   | UGC (Minor) PSW-183/13-14 dt 02-09-2014                                                 | Government | CHEMISTRY | 2014 |  | 2.5  | 2 Years |
| 19 | Study of arsenic removal from contaminated water through solid membrane                           | PI: Mrs. Trina Dutta   | UGC (Minor) PSW-188/13-14 dt 02-09-2014                                                 | Government | CHEMISTRY | 2014 |  | 2.05 | 2 Years |

|    |                                                                                        |                              |                                                                                         |            |         |      |  |      |         |
|----|----------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------|------------|---------|------|--|------|---------|
| 20 | The cognitive mechatronic fire extinguisher vehicle with obstracle detection an bypass | PI:Mr. Sumanta Chatterjee    | UGC (Minor) PSW-187/13-14 dt 02-09-2014                                                 | Government | CSE     | 2014 |  | 2.6  | 2 Years |
| 21 | Design of an interhuman unimodal biometric authentication system.                      | PI: Monalisa Dey             | UGC (Minor) PSW-192/13-14 dt 02-09-2014                                                 | Government | CSE     | 2014 |  | 3.06 | 2 Years |
| 22 | FPGA Based Implementation of a MAC unit for Digital Signal Processors                  | PI: Satrughna Singha         | UGC (Minor) PSW-186/13-14 dt 02-09-2014                                                 | Government | CSE     | 2014 |  | 4    | 2 Years |
| 23 | 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 | Government | PHYSICS | 2014 |  | 4.7  | 2 Years |

|    |                                                                                                                                                |                                              |                                                                                         |            |          |      |  |       |         |
|----|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------|------------|----------|------|--|-------|---------|
| 24 | 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 | Government | PHYSICS  | 2014 |  | 4.7   | 2 Years |
| 25 | 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/RI FD/RPS (Policy-1)32/2013-14                                     | Government | BME & IT | 2013 |  | 10.55 | 3 Years |
| 26 | 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/RI FD/RPS(Policy-IV)24/2012-13 dt. March 16, 2014                  | Government | ECE      | 2013 |  | 11.33 | 3 Years |

|    |                                                                                                                        |                         |                                                                          |            |         |      |  |       |         |
|----|------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------|------------|---------|------|--|-------|---------|
| 27 | Solar Photovoltaic hybridization with usual grid to compensate peak load demand at JIS College of Engineering Kalyani. | PI: Rakesh Naskar       | AICTE (RPS)<br>20/AICTE/RIFD/RPS(Policy-IV)24/2012-13 dt. March 16, 2014 | Government | EE      | 2013 |  | 8     | 3 Years |
| 28 | 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                  | Government | IT      | 2013 |  | 2. 67 | 3 Years |
| 29 | '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]                    | Government | Physics | 2012 |  | 14.64 | 3 Years |

|       |                                                  |                              |                                                                                |            |     |      |  |        |  |
|-------|--------------------------------------------------|------------------------------|--------------------------------------------------------------------------------|------------|-----|------|--|--------|--|
| 29    | Carrier Award<br>for Young<br>Teachers<br>(CAYT) | PI: Dr.<br>Biswarup<br>Neogy | AICTE<br>(CAYT)<br>11-<br>45/RIFD/CA<br>YT/POL-<br>I/2014-15 dt.<br>16.03.2015 | Government | ECE | 2015 |  | 3.4    |  |
| TOTAL |                                                  |                              |                                                                                |            |     |      |  | 131.91 |  |