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| | SPONSORED R & D PROJECTS TAKEN UP BY THE FACULTY | | | | | | | | | | | | |
|-----------|---|------|----------------------------|-------------------------|-------------------|----------------|---------------------------|--|--|--|--|--|--|
| 2019-2022 | | | | | | | | | | | | | |
| SI . N o | Project Title | Year | Duratio n (in years) | Amount (In Lakhs) | Funding Agency | Status | Principal Investigator | Co-Investigator | | | | | |
| 1 | Design and Fabrication of Flexible Artificial Basilar Epithelium | 2021 | 3 | 30 | SERB | In progress | Dr. M Uttarakumari | Shireesha G. | | | | | |
| 2 | Modelling, Simulation, Comparative Performance Evaluation and Firmware implementation of Adaptive Digital Beam Forming Techniques for optimized irregular sub array based active phased Array radar | 2021 | 1.5 | 10.325 | DRDO | In Progress | Dr.Nethravath i K A | Dr.Geetha K S Dr.Shilpa D.R | | | | | |
| | Design and Development of Autonomous Vehicle | 2021 | 2 | 80 | WIPRO | In Progress | Dr.M Uttarakumari | Dr. M Govinda raju Dr. Sujata Badiger | | | | | |
| 4 | Development of classifier based on deep/machine learning algorithms for land based munitions | 2020 | 2 | 37.50865 | ARMRE B-DRDO | In Progress | Dr. M Uttarakumari | Dr.Usha Rani K Dr. Sujatha D Badiger Dr. M Govinda raju | | | | | |

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| | | _ | | | | | | |
|---|---|------|------|----|----------------|----------------|----------------------|-----------|
| 5 | Preparation and characterization of chalcogenide materials for phase change memory applications | 2020 | 1 | 3 | VGST- RGS/F | In progress | Dr.Shylashree N | Deepika P |
| 6 | Electrostatic Energy Harvesting for Self Powered Medical wearable devices | 2019 | 1 | 5 | VGST- RGS/F | In progress | Dr.Shilpa D R | - |
| 7 | Design and development of flexible thin film sensors for wearable electronics | 2018 | 1 | 5 | VGST- RGS/F | Complet ed | Dr.Roopa J | |
| 8 | Release of grants under share & mentor institutions (Marghadharshan) | 2018 | 2 | 17 | AICTE | In Progress | Dr.Uma B V | - |
| 9 | Development of Compact C-band dual shaped graded index lens array antenna | 2018 | 3 | 25 | AICTE- RPS | In Progress | Dr. Ravishankar S | |
| | <u> </u> | Т | otal | | | | 212.83365 Lak | hs |

| | 2016-2019 | | | | | | | | | | | |
|-----------|---------------------------|------|------------------|-------------------------|----------------|-------------|---------------------------|-----------------|--|--|--|--|
| Sl. No | Project Title | Year | Duration in year | Amount (In Lakhs) | Funding Agency | Status | Principal Investigator | Co-Investigator | | | | |
| 1. | Development of Compact C- | 2018 | 3 | 25 | AICTE-RPS | In Progress | Dr.Ravishankar S | - | | | | |

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| 2. | band dual shaped graded index lens array antenna Release of grants under share&mentor institutions(Mar | 2018 | 2 | 17 | AICTE | In Progress | Dr.Uma B.V | - |
|----|---|-------------------------|---|---------|-----------------------------|-------------|---|---|
| 3. | ghadharshan Scheme) | 2018 | 1 | 5 | VGST-RGS/F | In Drograss | Drof Doors I | |
| 3. | Design and development of flexible thin film sensors for wearable electronics | | 1 | | | In Progress | Prof.Roopa J | - |
| 4. | Design, development and implementation of an adaptable ground vehicle classification system for battle field surveillance | 2016/5 -7- 2016 | 2 | 12.9573 | DRDO | Completed | Dr. Uttarakumari M | K.S Geetha, SujathaBadigar, RohiniHallikar |
| 5. | Design, Development And Fabrication | 2014/1 9-12- 2014 | 2 | 100 | KCTU-Karnataka govrnment | Completed | Dr.B.S.Satyanaraya na (Principal) | Dr. S.Mahendra Kumar, Prof. Krupashankar, Dr. H.Narashima Murthy, Dr. |

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| DEPARTMENT | OF ELECTRONICS & | COMMUNICATION ENGINEERING |
|------------|------------------|---|
| | | ~~~~!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\! |

| |] | DEPART | MENT OF | ELECT | RONICS & COMM | IUNICATION | ENGINEERING | | | | | | |
|----|--|------------------------|---------|-------|----------------|-------------------|---------------------------|--|--|--|--|--|--|
| | Of An Indigenous 3d Printing Facility For Metals And Metal Composites Based 3d Manufacturing | | | | | | | K.Badrinarayana, Prof. A. Bhattacharyya, Prof. K.N. Raja Rao, Dr. K.N. Subramanya | | | | | |
| | TOTAL: 159.9573Lakhs 2012-2016 | | | | | | | | | | | | |
| 6. | Discrete Multitone cable communication modem for SNR data aquasition& Telemetry applications | 2014/1 8-3- 2014 | 3 | 52.4 | ER&IPR DRDO | Completed | Dr.S.Ravishankar | K R Usha Rani | | | | | |
| 7. | Multi layered thin film sensor for gas turbine engine health monitoring | 2012/2 8-9- 2012 | 3 | 58 | ER&IPR DRDO | Completed | Dr.M.Krishna(M E dept) | Dr.B.S.Satyanarayana Dr.H.Narasimha Murthy (ME dept) Dr.S.A.Hariprasad | | | | | |

TOTAL: 110.4 Lakhs

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| | | | | | 2010-20 |)12 | | |
|-----|---|------------------------|---|-------|------------|-----------|-------------------------------|---|
| 8. | Development of multi layered coating for enhanced solar thermal absorption at high temperature | 2012/2 -3- 2012 | 3 | 481.8 | DST | Complted | Prof.Krupashnkar (ME dept) | Dr.B.S.Satyanarayana |
| 9. | Performance simulations using discrete multitone algorithms for acoustic wireless underwater communications and for wired communication in underwater vehicles. | 2012/1 4-3- 2012 | 3 | 46.6 | ERIPR-LRDE | Completed | Dr.S.Ravishankar | Dr.MBharathi, K R Usha Rani, K.Saraswathi, K.V.Padmaja (IT) |
| 10. | Development of an efficient underwater video compression for underwater acoustic channel | 2012/2 7-02- 12 | 2 | 11.75 | NRB | Completed | Dr.B.V.Uma | Dr.K.S.Geetha, Dr.Prasanna Kumar, Dr.Krishna |

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| 11. | Development of nano material and optically enabled front surface and back contact tailored enhanced efficiency amorphous silicon solar cells | 2011/2 9-12- 2011 | 3 | 402.5 | DST-SERI | Completed | Dr.B.S.Satyanara yana | Dr.VHS Murthy (MIT), Dr.ChandanBanarjee (HHV) |
|-----|--|-------------------------|---|-------|----------|-----------|--------------------------|---|
| 12. | Design of Predictive Controller for Ship navigation | 2011/2 6-5-11 | 2 | 20.5 | NRB | Completed | Dr.S.A.Hariprasa d | Satish |
| 13. | Growth and characterization of novel room temperature grown nano cluster carbon based thin film transistors | 2011/1 3-1-11 | 3 | 5.788 | UGC | Completed | Dr.L.Sreelakshmi | Dr.B.S.Satyanarayana, Dr.T.C.Thanuja |
| 14. | Development of carbon Nanotubee based vaccumNano electronic X-ray sources for | 2010/2 4-8-10 | 2 | 13.47 | VTU | Completed | Dr.B.S.Satyanara yana | Dr.S.Jaganathan |

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| | | DEPAR' | IMENT OF | ELECT | RONICS & COMM | UNICATION | ENGINEERING | | | | | | | | |
|-----|--|-----------------------|----------|-------|---------------|-----------|--------------------------|-------------------|--|--|--|--|--|--|--|
| | making compact lowpower hand held X-ray | | | | | | | | | | | | | | |
| | TOTAL: 982.408 Lakhs | | | | | | | | | | | | | | |
| | 2002-2009 | | | | | | | | | | | | | | |
| 15. | Development of algorithms for improved accuracy in DGPS measurements using DSP tools | 2009/1 -5-09 | 2 | 5.88 | ARMREB | Completed | Dr.K.A.Sumitra Devi | Dr.S.A.Hariprasad | | | | | | | |
| 16. | | 2008/1 6-10- 08 | 3 | 35 | NRB | Completed | Dr.S.A.Hariprasa d | Dr.Krishna | | | | | | | |
| 17. | Design and development and integration of co-processors with DSP TI6X | 2008/6 -10-08 | 2 | 36.3 | NRB | Completed | Dr.G.Padmavathi (AVU) | Dr.S.A.Hariprasad | | | | | | | |

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| | family using | | | | | | | |
|-----|-------------------|--------|---|-------|----------|-----------|------------------|--------------------|
| | FPGA for naval | | | | | | | |
| 10 | application | | | 10.15 | 1777 | | | |
| 18. | - | 2007/1 | 2 | 18.45 | NRB | Completed | Dr.Subashini | Prof.B.S.Kariyappa |
| | defining | 9-3-07 | | | | | (AVU) | |
| | maneuring | | | | | | | |
| | parameters of | | | | | | | |
| | ship model by | | | | | | | |
| | analyzing wakes | | | | | | | |
| | using image | | | | | | | |
| | processing | | | | | | | |
| | techniques | | | | | | | |
| 19. | J | 2007/2 | 2 | 13.45 | IPR CABS | Completed | Dr.S.Ravishankar | Dr.T.S.Rukmini, |
| | analysis of | 1-3-07 | | | | | | Dr.H.V.Kumaraswamy |
| | active array | | | | | | | |
| | antennas | | | | | | | |
| | embedded in | | | | | | | |
| | hemispherical | | | | | | | |
| | and | | | | | | | |
| | hemispheroidal | | | | | | | |
| | shaped dielectric | | | | | | | |
| | lenses for | | | | | | | |
| | airboarne | | | | | | | |
| | mobile | | | | | | | |
| 20 | communication | 2006/2 | | 20.0# | N.D.D. | | D 0 D 11 1 | D. T.C.D. L. L. |
| 20. | Design and | 2006/2 | 3 | 39.85 | NRB | Completed | Dr.S.Ravishankar | Dr.T.S.Rukmini, |
| | development of | 8-9-06 | | | | | | Dr.Krishna |
| | dielectric lenses | | | | | | | |
| | based active | | | | | | | |
| | smart array | | | | | | | |

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| | antenna for surface communication of underwater vehicles | | | | | | | |
|-----|---|-----------------------|-----|-------|----------------|-----------|-------------------|------------------|
| 21. | Design and development of controller working on 1553 digital bus ion various modes of military applications | 2006 | 2 | 13.74 | IPR DRDO | Completed | Dr.R. Nagaraj | - |
| 22. | ASIC control for AC servomotor drive for military applications | 2005/1 4-10- 05 | 2 | 9.98 | ARB | Completed | Dr.R. Nagaraj | - |
| 23. | A cost effective smart antenna for mobile broadband application | 2005/4 /8/05 | 3 | 6.47 | ISRO | Completed | Dr.S.Ravishankar | Dr.S.Jagannathan |
| 24. | Implementation of self turning controller | 2002/2 2-10- 05 | 1.5 | 13.04 | CPRI | Completed | Dr.J.K.Mendiratta | - |
| | | | | , | TOTAL:192.21 I | Lakhs | | |



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