

**SSN RESEARCH CENTRE**

**SSN COLLEGE OF ENGINEERING**

**KALAVAKKAM-603 110**

**LIST OF EXTERNALLY FUNDED PROJECTS**

<b>Sl. No.</b>	<b>Project Title</b>	<b>Principal Investigator</b>	<b>Funding Agency / Amount</b>	<b>Duration</b>
1	Growth of large size KDP and ADP crystals by Sankaranarayanan-Ramasamy Method	Dr. P. Ramasamy Dean(Research)	DST Rs.19.97 Lakhs	2007-2009 (Three years)
2	Investigations on the bulk growth of unidirectional single crystals of benzophenone derivatives	Dr. P. Ramasamy Dean(Research)	AICTE Rs.10.00 Lakhs	2007-2008 (Two years)
3	Growth of I-III-VI <sub>2</sub> single crystals for IR applications and radiation detectors	Dr. P. Ramasamy Dean(Research)	BRNS 22.06 Lakhs	2008 -2010 (Three years)
4	Growth and Characterization of LiInS <sub>2</sub> and LiInSe <sub>2</sub> crystals for IR applications	Dr. P. Ramasamy Dean – Research	NRB Rs.32.68 Lakhs	2009-2011 (Three years)
5	Growth of doped alkali halide crystals for Dosimetry applications	Dr. P. Ramasamy Dean(Research)	IGCAR Rs.11.00 Lakhs	2009-2012 (Four years)
6	Investigations on crystal growth and characterization of pure and rare earth doped KTP single crystals for electro-optic applications	Dr. N.P. Rajesh Physics Dr. P. Ramasamy Dean(Research)	DST Rs.21.00 Lakhs	2010 to 2013 (Four years)
7	Improved growth of lead-free piezoelectric single crystal (Na <sub>x</sub> Bi <sub>1-x</sub> ) TiO <sub>3</sub> -BaTiO <sub>3</sub> and characterization towards piezoelectric device applications	Dr. P. Ramasamy Dean(Research) Dr. G. Anandha Babu	DST Rs. 29.40 Lakhs	2011 to 2013 (Three years)

8	Amorphous Silicon Thin Films for Microbolometers.	Dr. Shekhar Bhattacharya	SSPL Rs. 9.00 Lakhs	2011  (one year)
9	Research Investigations on amorphous silicon thin film photo-voltaics	Dr. Shekhar Bhattacharya  Dr. P. Balaji Bhargav	DRDO Rs.87.74 Lakhs	Jan 2011 to Dec 2013 (Three Years)
10	Investigations on various doped ZnO films as front contact TCO in flexible amorphous silicon solar cells	Dr. Balaji Bhargav Mr Nafis Ahmed SSN RC	UGC-DAE: CSR  Rs.7.00 Lakhs	2012-2014  (Three years)
11	“Investigation on Crystal growth and Characterization of Multiferroic single crystals”	Dr.G.Ananda Babu  Prof.P.Ramasamy  Physics	UGC-DAE CSR  Rs.8.00 lakh	From 2012 – 13  Three Years
12	Crystal growth of alkaline earth halide and cesium based alkaline earth halide scintillation crystals for gamma ray spectroscopy	Dr.G.Anandha Babu, Physics  Dr. P. Ramasamy, Dean(Research)	BRNS  Rs.24.82 Lakhs	2013 - 2016  (Three years)
13	Development of High Quality Direction Controlled Lithium Iodate and Lithium Sulphate Single Crystals for Nonlinear Optical applications	Dr.P.Rajesh, Physics  Dr. P. Ramasamy, Dean(Research)	BRNS  Rs.23.00 Lakhs	2013 - 2016  (Three years)
14	Unidirectional and bulk growth of high quality nonlinear optical (NLO) 2-amino-5-nitropyridinium (2A5NP) derivative single crystals for second harmonic generation (SHG) device applications.	Dr. M. Senthil Pandian  SSN RC	DST-SERB  16.68 Lakhs	2013 – 2017  (Four Years)

15	Fabrication of solid state dye sensitized solar cell for stability enhancement and improved performance.	Prof.P.Ramasamy Dean(Research) Dr.M. Senthil Pandian	DST-SERI Rs.73.26 Lakhs	2014-2017 (Three years)
16	Development of improved DS process for mc-Si wafers and their application to Solar Cells	Dr.P.Ramasamy Dr.G.Anandha babu	MNRE 465.00 lakh	2014 – 2018 4 years
17	Synthesis of mesoporous one dimensional TiO <sub>2</sub> and ZnO <sub>2</sub> nanostructures and their characterization for Dye synthesized solar cell	Prof.P.Ramasamy Dean(Research)	UGC-DAE CSR / Rs.10.76 lakhs	2014-2017 (Three years)
18	Development of Lead free piezoelectric 0.94 Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> -0.06 BaTiO <sub>3</sub> single crystals for transducer applications	PI : Dr.G.Anandha Babu Co-PI: Dr. P. Ramasamy	DRDO Rs. 50.25 lakhs	2015-2018 (Three years)
19	High Quality Unidirectional 4-Nitrophenol Derivative Single Crystals for SHG Device Applications	Dr.M.Senthil Pandian Dr. P. Ramasamy SSN RC	BRNS Rs.25.82 lakhs	2016-2018 3 Years
20	Growth of direction controlled homogenous mixed crystals for optical applications	Dr. P. Rajesh Physics Dr. P. Ramasamy SSN RC	CSIR Rs.20.0 lakhs	2016-2018 3 Years
21	Growth and characterization of defect controlled topological insulator Bi <sub>2</sub> Te <sub>2</sub> Se and	Dr. G. Anandha Babu Dr.P.Ramasamy	DST-SERB Rs.18.80 lakhs	2016-2018 3 Years

	Bi <sub>2</sub> -xSbxTe <sub>3</sub> -ySey single crystals			
22	Fabrication of stable Perovskite solar cells using inorganic hole transport materials	Dr.M.Senthil Pandian Prof.P.Ramasamy SSN RC	DST-SERI Rs.78.0 lakh	2017-2020
23	Investigation on rare earth doped CsI single crystals for scintilation applications	Dr.N.P.Rajesh Prof.P.Ramasamy SSN RC	SERB Rs.30.0 lakh	2017-2019
24	Development of ultra low thermal conductivity high performance thermoelectric TIBiSe <sub>2</sub> and TIBiS <sub>2</sub> Single crystals	Dr. K. Aravinth Dr.P.Ramasamy SSN RC	SERB-EMR Rs.15.0 lakh	2017-2020
25	Growth of triphenenyl derivatives for neutron detection applications	Dr. P. Rajesh Dr. P. Ramasamy Physics	SERB-EMR Rs.20.0 lakh	2017-2020
26	Development of high performance ternary piezoelectric ceramics for transducers applications	Dr. G. Anandha Babu Prof. P. Ramasamy Physics	CSIR 20 Lakh	2018-2021 3 Years
27	Functionalization of graphene for their application as transparent conducting electrode	Dr. P. Balaji Bhargav C. Balaji, SSN RC	UGC DAE-CSR 7.0 Lakh	2018-2021 Three Years
28	Device quality and bulk size high performance thermoelectric silver bismuth sulfide (AgBiS <sub>2</sub> ) and silver bismuth selenide (AgBiSe <sub>2</sub> ) single crystals for thermoelectric (TE) applications	Dr. M. Senthil Pandian SSN RC	SERB 40.7 Lakh	2019-2021
29	Design and development of disc-shape donors and inorganic acceptors for hybrid organic/inorganic solar cells	Prof. P. Ramasamy Dr. M. Senthil Pandian	Recycle3, Canada Rs.27.6 lakh	2019-2020

		Dr. P. Balaji Bhargav Dr. R. Govindaraj Dr. S. Arun Karthick		
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