

SwarnaJayanti Fellowships Scheme- 2019-20

List of Shortlisted Candidates for Presentation before National Core Committee (NCC)

Date: 13th & 14th October, 2020

Via: Video conferencing

S.No	Applicant/Candidate Name & Address	Title of the Proposed Project Proposal/ Temporary File No.
1.	Dr. Rajesh V. Nair Department of Physics, Indian Institute of Technology-Ropar, Nangal Rd, Hussainpur, Rupnagar-140001	Studies on the spectral and temporal modification of spontaneous emission of solid state defects using resonant photonic structures DST/SJF/PS/2020/60
2.	Dr. Vanchiappan Aravindan Department of Chemistry, Indian Institute of Science Education and Research-Tirupati, Rami Reddy Nagar, Karakambadi Road, Mangalam P.O. Tirupati-517507	Building Better Batteries: Development of Dual-Carbon and Al-ion Battery Prototypes from Spent Li-ion Battery DST/SJF/PS/2020/64
3.	Dr. Basudeb Dasgupta Department of Theoretical Physics, Tata Institute of Fundamental Research, 1, Homi Bhabha Road, Colaba, Mumbai-400005	Neutrino Murmurations and Supernova Explosions DST/SJF/PS/2020/66
4.	Dr. Rejish Nath Department of Physics, Indian Institute of Science Education and Research-Pune Dr. Homi Bhabha Road, Pune -411008	Engineering Quantum Matter and Quantum states in dipolar systems towards Quantum technological Applications DST/SJF/PS/2020/104
5.	Dr. Sanjib Kumar Agarwalla Institute of Physics, Sachivalaya Marg, Bhubaneswar -751005	Landscape of Beyond the Standard Model Physics at Neutrino Experiments DST/SJF/PS/2020/109
6.	Dr. Anup Biswas Deptt. of Mathematics, Indian Institute of Science Education and Research-Pune, Dr. Homi Bhabha Road, Pune -411008	Analysis of nonlinear nonlocal partial differential equations: A probabilistic viewpoint DST/SJF/MS/2020/17
7.	Dr. Hariharan Narayanan School of Technology & Computer Science, Tata Institute of Fundamental Research, 1, Homi Bhabha Road, Colaba, Mumbai -400005	Provable guarantees for machine learning, with a focus on manifolds and Lie theoretic symmetries DST/SJF/MS/2020/18

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8.	Dr. Mahesh Kakde Deptt. of Mathematics, Indian Institute of Science, Bengaluru-560012	Special values of L- functions DST/SJF/MS/2020/22
9.	Dr. Vijayakumar S. Nair Space Physics Laboratory, Vikram Sarabhai Space Centre , Thiruvananthapuram-695022	What compensates the masking effects of aerosols on global warming DST/SJF/EAS/2020/33
10.	Dr. Sambuddha Misra Centre for Earth Sciences, Indian Institute of Science, Bengaluru-560012	Role of CO ₂ in Amplifying Glacial-Interglacial Cycles DST/SJF/EAS/2020/45
11.	Dr. Angshuman Nag Deptt. of Chemistry, Indian Institute of Science Education and Research-Pune, Dr. Homi Bhabha Road, Pune -411008	Lanthanide Doping in Perovskite Semiconductors: visible to infrared electroluminescence DST/SJF/CS/2020/54
12.	Dr. Dibyendu Das Deptt. of Chemical Sciences, Indian Institute of Science Education and Research- Kolkata, Mohanpur-741246	Sustained Autonomy in Out of Equilibrium Supramolecular Materials DST/SJF/CS/2020/68
13.	Dr. P. Anbarasan Deptt. of Chemistry, Indian Institute of Technology-Madras, Chennai -600036	Design, development and application of C ₂ - symmetric chiral cyclopentadien(on)e in the transition metal catalyzed asymmetric transformation DST/SJF/CS/2020/73
14.	Dr. Ekambaram Balaraman Deptt. of Chemistry, Indian Institute of Science Education and Research- Tirupati, Rami Reddy Nagar, Karakambadi Road, Mangalam P.O, Tirupati -517507	Non-innocent Ligands for Catalysis with Earth- Abundant Metals DST/SJF/CS/2020/74
15.	Dr. Suryasarathi Bose Deptt. of Materials Engineering, Indian Institute of Science, Bengaluru-560012	Large-area 'printed' desalination membranes derived from external stimulus aligned graphene oxide liquid crystals DST/SJF/ET/2020/149
16.	Dr. Sushmee Badhulika Deptt. of Electrical Engineering, Indian Institute of Technology-Hyderabad, Kandi, Sanga Reddy, Telangana-502285	Development of a low cost sensor array based on surface functionalized 2D- MoS ₂ for detection of vital proteins and neurotransmitters in human fluids DST/SJF/ET/2020/151

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17.	Dr. Chandra Shekhar Sharma Deptt. of Chemical Engineering, Indian Institute of Technology-Hyderabad Kandi, Sanga Reddy, Telangana-502285	Scientific Understanding and Technical Development of Metal- CO ₂ battery with CO ₂ as an Energy Carrier for India's Mars Mission DST/SJF/ET/2020/196
18.	Dr. Prabhu Rajagopal Deptt. of Mechanical Engineering, Indian Institute of Technology-Madras, Chennai-600036	Concepts for Quantum Phononics DST/SJF/ET/2020/254
19.	Dr. Gopaljee Jha National Institute Of Plant Genome Research, Aruna Asaf Ali Marg, New Delhi-110067	Enhancing sheath blight disease tolerance in rice DST/SJF/LS/2020/176
20.	Dr. Athi Narayanan. N Deptt. of Biotechnology, Indian Institute of Technology-Madras, Chennai -600036	Molecular Mechanisms Shaping Environment Sensing in Bacteria - Linking Microscopic Energetics and Dynamics to Stress and Pathogenic Response DST/SJF/LS/2020/182
21.	Dr. R. Mahalakshmi Deptt. of Biological Sciences, Indian Institute of Science Education and Research-Bhopal, Bhopal Bypass Road, Bhauri, Bhopal-462066	Molecular Bioenergetics and Apoptosis Regulation by Human Mitochondrial VDAC DST/SJF/LS/2020/210
22.	Dr. Biman B. Mandal Deptt. of Biosciences and Bioengineering, Indian Institute of Technology-Guwahati, Guwahati-781039	Modeling human liver microarchitecture and cellular physiology in vitro using 3D bioprinting for drug toxicity and high throughput drug screening applications DST/SJF/LS/2020/233
23.	Dr. Sandeep Eswarappa Deptt. of Biochemistry, Indian Institute of Science, Bengaluru-560012	Therapeutic induction of translational readthrough across muscular dystrophy-causing premature stop codon of dystrophin DMD mRNA DST/SJF/LS/2020/238
24.	Dr. Aprotim Mazumder Tata Institute of Fundamental Research- Hyderabad Gopanpally, Hyderabad-500107	Single-cell level chromatin organization and dynamics as regulators of tissue- specific DNA damage responses, gene expression and cancer development DST/SJF/LS/2020/242