



सत्यमेव जयते

F No-13-52/2018-ICC
Ministry of Human Resource Development
Department of Higher Education

Minutes of SPARC Apex Committee Meeting held on 28.02.19 at 3.00 PM

The Apex Committee constituted for considering the projects to be sanctioned under the Scheme for Promotion of Academic and Research Collaboration (SPARC) has met under the Chairmanship of Secretary, Higher Education on 28th February 2019. The list of participants is enclosed.

2. The meeting took stock of the action taken on the 199 projects already approved:

- a) The NC has informed that (199) approved proposals along with rejected proposals have been intimated acceptance or rejection. He also shared that some contestations also came with a request to third review. After the acceptance, it was found that many proposals were not according to SPARC budget framework so all PIs of 199 approved proposals have been asked to provide budgetary requirements by 28th Feb 2019.
- b) Two proposals with Taiwanese PIs have been cleared by MEA.
- c) The following decisions have been taken to take them forward:
 - i. All sanction letters may be issued by the first week of March and by 15th of March 2019 all the projects will start.
 - ii. In case of grievances regarding review process, the proposal should be sent for the third review.
 - iii. All Indian Ambassadors in 28 SPARC countries may be informed about these approved proposals, keeping Foreign Secretary informed.
 - iv. There shall be a strong monitoring mechanism by IIT Kharagpur covering progress of research, availability and access of equipments required for research.
 - v. A knowledge portal similar to IMPRINT's Knowledge Portal (Professor Manna's help can be sought to develop such a portal) shall be put in place.

3. The Apex Committee has taken up for examination (231) proposals for which scrutiny the Domain Expert Committees has been completed, and decided as follows:

- a) All the 83 (Annexure II) which have Strong Accept or Accept or Weak Accept (above 6) with a total budget of 5229.53 Lakhs have been approved..
- b) It was decided that one rejected Proposal which got above 6 would be sent for the third review.
- c) The institutions which are already in the top 100 NIRF ranks, but have not submitted even one proposal under SPARC, shall be called for a Workshop under the guidance of Professor Chauhan and IIT Kharagpur to chalk out a plan to use the facility.
- d) The process of scrutiny of balance projects shall be completed before 1st April and the Apex Committee will meet on 10th April, 2019 at 3.00 PM to complete the 1st call work.
- e) Further, in future, there should be a cap of (20) project proposals per institution.

4. Regarding the UKIERI proposal to fund SPARC, it was decided that UK proposals approved under SPARC can be further funded by UKIER for Indian faculty and students travel and stay in UK. Depending on the size of the project, this assistance can be Rs. 10 to 15 Lakhs over and above the project fund.

5. The meeting ended with thanks to the Chair.

List of Participants:

1. Mr. R. Subrahmanyam, Secretary (Higher Education), MHRD – Chair
Professor Partha P. Chakrabarti, Director, IIT, Kharagpur
2. Professor Virander S. Chauhan, Chairman, Executive Committee, NAAC
3. Mr. Arindam Bhattacharya, Director (PP&R) MEA
4. Professor Anil Sahasrabudhe, Chairman, AICTE
5. Professor Indranil Manna (through VC), IIT, Kharagpur
6. Mr. V.K. Siljo, Director (ICC), MHRD
7. Dr. Amitava Roy, SC-G, DST
8. Dr. Shailja V. Gupta, Advisor – ‘G’, DBT
9. Mr. Anil Kumar, Director (Finance) MHRD
10. Dr. S. Vaidhyasubramaniam, Vice Chancellor, SASTRA Deemed
University
11. Dr. Anamika, Senior Consultant, MHRD

PHASE II – LIST OF PROPOSALS

Row Labels	No of Proposals	Total SPARC Budget (in Lakhs)
Action-Oriented Research	23	1482.32
<i>Future of Earth: Green and Renewable Technologies</i>	8	506.07
#1207 [Accept] [8] [Indian Institute of Technology (Indian School of Mines) Dhanbad-Prof. Sarat Kumar Das] [UNIVERSITY OF ILLINOIS, CHICAGO (UIC), United States of America-Prof. Krishna R Reddy] GEOENVIRONMENTAL AND GEOTECHNICAL ISSUES OF COAL MINE OVER BURDEN	1	43.92
#758 [Accept] [7.5] [Indian Institute of Technology Madras-Mr. Piyush Chaunsali] [MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT), United States of America-Dr. Elsa Olivetti] Sustainability of Novel Cementitious Binders Derived from Industrial By-Products	1	49.2
#893 [Accept] [7] [Indian Institute of Technology Delhi-Prof. Nilanjan Senroy] [ARIZONA STATE UNIVERSITY, United States of America-Prof. Vijay Vittal] Synchrophasor Assisted Efficient Operation of Ancillary Services in Smart Grid	1	40.56
#43 [Accept] [6.63] [Indian Institute of Technology Roorkee-Prof. Narayana Prasad Padhy] [WASHINGTON STATE UNIVERSITY, United States of America-Dr. Anurag K Srivastava] Development Of Renewable energy Integrated Smart grid laboratory (DORIS)	1	76.9
#879 [Accept] [6.58] [Indian Institute of Technology Bhubaneswar-Dr. Hanumantha B Rao] [UNIVERSITY OF ILLINOIS, CHICAGO (UIC), United States of America-Prof. Krishna R Reddy] A Novel Biotreatment of Bauxite Residue for Conversion into Sustainable Geomaterial	1	46.36
#733 [Accept] [4.83] [Banaras Hindu University-Prof. Onkar Nath Srivastava] [UNIVERSITY OF PITTSBURGH, United States of America-Prof. J Karl Johnson] Dawn of Green Energy through Hydrogen Storage and CO2 Capture	1	74.13
#833 [Weak Accept] [7.25] [Indian Institute of Engineering Science and Technology, Shibpur-Prof. Mainak Sengupta] [MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT), United States of America-Prof. Steven B Leeb] Development of motor eccentricity and vibration monitoring systems and control strategies for switched reluctance motor-based drives	1	100
#69 [Weak Accept] [7] [G. B. Pant Universtiy of Agriculture and Technology-Prof. Jyothi Prasad] [WESTERN SYDNEY UNIVERSITY, Australia-Dr. DHARMA HAGARE] Recharge Process of Springs and Its Management to mitigate anthropogenic and climate change impact for water Security: A case study in part of Kumaun Lesser Himalaya, India	1	75
<i>Agricultural and Food Sustainability</i>	6	481.69
#854 [Accept] [8.5] [Chaudhary Charan Singh Haryana Agricultural University-Prof. Pushpa Kharb] [UNIVERSITY OF MASSACHUSETTS, AMHERST, United States of America-Prof. Om Parkash Dhankher] Application of CRISPR/Cas9genome editing techniques for development of low silicone rice suitable for paddy straw management	1	98.52
#1544 [Accept] [8.5] [Indian Institute of Technology Guwahati-Dr. R Anandalakshmi] [NORTH CAROLINA STATE UNIVERSITY, United States of America-Prof. K. P. Sandeep] Thermal food processing optimization for simultaneous multi-product sterilization	1	53.02
#1171 [Accept] [8.25] [Indian Institute of Technology Kharagpur-Dr. Prasanta Kumar Guha] [UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, United States of America-Dr. Girish Chowdhary] Development of smart sensors mounted on under-canopy robots for precision agriculture	1	63.92
#1158 [Weak Accept] [6.75] [Indian Institute of Technology Kanpur-Prof. Laxmidhar Behera] [DEAKIN UNIVERSITY, Australia-Prof. Saeid Nahavandi] Deployment of low-cost multi-rotor mini-UAVs (Unmanned Aerial Vehicles) for early detection of crop diseases and development of an optimal system for management of farming activities	1	77.74

#375 [Weak Accept] [6.5] [Indian Institute of Science-Prof. Anbazhagan Panjamani] [UNIVERSITÀ DI BOLOGNA (UNIBO), Italy-Prof. Marco Bittelli] Prediction of soil hydro agricultural properties using Ground Penetrating Radar for improving Agricultural practice	1	98.49
#655 [Weak Accept] [6.25] [Tamil Nadu Agricultural University-Dr. Shunmugam Ganapathy] [UNIVERSITY OF MINNESOTA, United States of America-Prof. Parameswaran Kumar Mallikarjunan] Development of novel methods for aflatoxin mitigation and management practices for value addition in chillies in India	1	90
Law and Society	5	247.62
#1116 [Accept] [7.75] [National Law University-Dr. Amita Punj] [UNIVERSITY OF ANTWERP, Belgium-Prof. Wouter Vandenhole] SUSTAINABLE DEVELOPMENT AS INCLUSION: LAW, GENDER AND EDUCATIONAL CURRICULUM	1	38.4
#310 [Weak Accept] [7] [Pondicherry University-Prof. Chandhrika G.] [UNIVERSITY OF LAUSANNE, Switzerland-Prof. Eleonore Lepinard] Engendering Development Goals, Action Plans and Strategies:Dialogues between India and Europe	1	70.54
#832 [Accept] [8.5] [University of Delhi-Prof. Nandini Sharma] [UNIVERSITY OF FLORIDA, United States of America-Dr. Jennifer Doty] Building capacity to prevent cyberbullying in India and the U.S.: A cross-cultural collaboration	1	47.87
#653 [Accept] [8.25] [Pondicherry University-Prof. Charumathi Balakrishnan] [DEAKIN UNIVERSITY, Australia-Dr. Luckmika Perera] International Financial Reporting Standards (IFRS) into the World of Small and Medium Enterprises (SMEs) - A Study Pertaining to Australia and India (An Evaluation of Reporting Culture, Adaptability, Applicability and Development of IFRS Framework)	1	50.56
#1439 [Accept] [7.5] [National Law University-Prof. (Dr.) Harpreet Kaur] [THE CHINESE UNIVERSITY OF HONG KONG (CUHK), Hong Kong-Prof. Chao Xi] Re-examining Shareholder Voting and Engagement in Emerging Economies of PR China and India	1	40.25
River, Ocean, Aviation and Space Management Technologies	4	246.94
#262 [Accept] [7.25] [National Institute of Technology Surathkal-Dr. Pruthviraj Umesh] [NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY, Norway-Dr. Hans Bihs] Environmental innocuous pile head breakwater for the Mitigation of coastal erosion	1	48.42
#383 [Weak Accept] [6.75] [Indian Institute of Technology Gandhinagar-Dr. Vikrant Jain] [THE UNIVERSITY OF AUCKLAND, New Zealand-Prof. Gary John Brierley] Development and application of geomorphic tool for sustainable management of a Himalayan river system, India	1	65.06
#1461 [Weak Accept] [6.5] [Mahatma Gandhi University-Prof. CT Aravindakumar] [UNIVERSITY OF LEICESTER, United Kingdom-Dr. Mick Whelen] Towards sustainable surface water ecosystems in India: Predicting the fate, transport and effects of urban wastewater pollutants in rivers.	1	48.5
#270 [Weak Accept] [6.25] [National Institute of Technology Warangal-Dr. Venkata Reddy Keesara] [TEXAS A&M UNIVERSITY, United States of America-Prof. Raghavan Srinivasan] Real-time Forecasting of Floods Using SWAT model	1	84.96
Convergence	22	1365.76
Energy and Water Sustainability	13	878.48
#1238 [Strong Accept] [9.25] [Indian Institute of Technology Bombay-Prof. Yogendra Shastri] [UNIVERSITY OF ILLINOIS, CHICAGO (UIC), United States of America-Prof. Urmila Diwekar] Integrated global and regional assessment of food, energy, and water sustainability	1	67.34
#1460 [Strong Accept] [9.25] [Mahatma Gandhi University-Dr. Nandakumar Kalarikkal] [UNIVERSITÉ DE MONTPELLIER, France-Dr. Bruno Ameduri] Bio-filler-Interfaced Electrospun PVDF Hybrid Piezoelectric Generator for Mechanical Energy Harvesting	1	78.97
#1097 [Strong Accept] [9.25] [Indian Institute of Technology Guwahati-Prof. Parameswar Krishnan Iyer] [RICE UNIVERSITY, United States of America-Prof. Aditya Mohite] Hybrid	1	26.4

Organic-Inorganic Perovskites for Solar Energy Conversion		
#1080 [Strong Accept] [8] [Indian Institute of Technology Bhubaneswar-Dr. Meenu Ramadas] [OREGON STATE UNIVERSITY, United States of America-Dr. Meghna Babbar-Sebens] Stakeholder-driven Decision Support Cyberinfrastructure for Empowering Rural Communities to Plan for Water-Agro-Energy-Climate Resiliency	1	92.89
#992 [Accept] [8] [Indian Institute of Technology Delhi-Prof. Sukumar Mishra] [MACQUARIE UNIVERSITY, Australia-Dr. Jahangir Hossain] Self-healing and energy-efficient Internet of Energy	1	101.75
#930 [Accept] [7.75] [Mahatma Gandhi University-Dr. Nandakumar Kalarikkal] [BEN GURION UNIVERSITY OF THE NEGEV, Israel-Prof. Dan Meyerstein] Study of urea oxidation electrocatalysis for energy conversion from waste	1	66.72
#666 [Accept] [7.5] [Indian Institute of Technology Madras-Prof. Rajagopalan Srinivasan] [NATIONAL UNIVERSITY OF SINGAPORE (NUS), Singapore-Prof. Iftekhar Abubakar Karimi] Natural Gas Value Chain Management	1	96.7
#243 [Accept] [7.5] [Indian Institute of Technology Ropar-Dr. Lipika Kabiraj] [TECHNISCHE UNIVERSITÄT BERLIN (TU BERLIN), Germany-Prof. Christian Oliver Paschereit] Next generation fuel staging technologies employing H ₂ combustion for GT engines (NFS-GT)	1	82.68
#1122 [Accept] [7.5] [SRM Institute of Science and Technology-Dr. Maiyalagan Thandavarayan] [KAIST - KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY, South Korea-Prof. Jinwoo Lee] Development of Nanostructured Bi-functional oxide low cost electro-catalysts for Sustainable High Energy Density Metal-Air Battery for Electric vehicles	1	48.82
#1106 [Accept] [7.25] [Vellore Institute of Technology-Prof. Atanu Dutta] [UNIVERSITY OF ROME "TOR VERGATA", Italy-Dr. Elisabetta Di Bartolomeo] Effect of co-doping in a cation-ordered double perovskite (GdBa _{1-x} Sr _x Co _{1-y} Ni _y O _{5+δ}) as cathode materials for low temperature solid oxide fuel cell application	1	42.29
#692 [Accept] [6.75] [National Institute of Technology Warangal-Dr. Murali Mohan Seepana] [NEWCASTLE UNIVERSITY, United Kingdom-Dr. Mohamed Mamlouk] Development and Demonstration of hydrogen redox flow battery using non precious electrocatalysts	1	43.2
#1108 [Weak Accept] [6.75] [Birla Institute of Technology & Science-Dr. HITESH DATT MATHUR] [CENTRALESUPÉLEC, France-Prof. Houria SIGUERDIDJANE] Management of Distributed Energy Resources in Smart Cities: Challenges and Advanced Control Strategies	1	44.92
#418 [Weak Accept] [6] [Indian Institute of Technology Gandhinagar-Dr. Babji Srinivasan] [UNIVERSITY OF THE WITWATERSRAND, South Africa-Prof. Thokozani Majozi] Advanced Optimization Strategies for Efficient Water and Energy Utilization in Batch Processes: Case Studies in Pharmaceutical and Textile Industries	1	85.8
Transportation and Smart Infrastructure	2	95.3
#919 [Accept] [6.75] [Indian Institute of Technology Madras-Prof. Lelitha Devi Vanajakshi] [PURDUE UNIVERSITY, United States of America-Prof. Darcy Bullock] Advanced Techniques for Mobility and Congestion Analysis For Indian Cities	1	36.5
#256 [Strong Accept] [9] [Indian Institute of Science-Prof. Abdul Rawoof Pinjari] [UNIVERSITY OF TEXAS AT AUSTIN, United States of America-Prof. Chandrasekhar Ramalinga Bhat] Synergistic formulation of smart mobility solutions for India: mobility as a service (MaaS), electric vehicles (EVs), and integrated public transit	1	58.8
Affordable Health Care	4	235.78
#619 [Strong Accept] [9] [Indian Institute of Science-Dr. Prasanta Kumar Ghosh] [UNIVERSITY OF SOUTHERN CALIFORNIA, United States of America-Prof. Shrikanth (Shri) S. Narayanan] Machine Intelligence for Cognitive and Communication Disorders	1	49.2

#1155 [Accept] [7.75] [Post Graduate Institute of Medical Education and Research-Dr. Mona Duggal] [LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, United Kingdom-Ms. Marcia Doreen Zondervan] Framework for Developing Training Model to Strengthen Diabetic Retinopathy Screening and Research in North India	1	68.43
#698 [Accept] [7.25] [Kumaraguru College of Technology-Dr. Bhaarathi Dhurai] [NATIONAL UNIVERSITY OF SINGAPORE (NUS), Singapore-Prof. Seeram Ramakrishna] Development of non-absorbable soy protein nanofibre suture loaded with Rubiacordifolia and Eichhorniacrassipes for surgical site infection	1	72.85
#670 [Accept] [6.25] [Visvesvaraya National Institute of Technology Nagpur-Dr. Saugata Sinha] [UNIVERSITY OF ROCHESTER, United States of America-Dr. Vikram Dogra] Low cost real time dual mode Photoacoustic Ultrasound imaging technology for non invasive diagnosis and management of cancer	1	45.3
Advanced Manufacturing	1	36.36
#1299 [Strong Accept] [8.25] [Indian Institute of Technology Bombay-Prof. Shyamprasad Karagadde] [UCL (UNIVERSITY COLLEGE LONDON), United Kingdom-Prof. Peter D Lee] Mitigation of porosity in high pressure and additive manufacturing of advanced light alloys	1	36.36
Science & Heritage	2	119.84
#1242 [Accept] [7.25] [Indian Institute of Technology Indore-Prof. Sandeep Chaudhary] [UNIVERSITÉ AIX-MARSEILLE, France-Dr. Sebastien Guenneau] Safeguarding heritage structures using seismic metamaterials	1	47.84
#720 [Weak Accept] [6.17] [Jamia Millia Islamia-Prof. Nishat Zaidi] [University of Witwatersrand, South Africa-Prof. Dilip Madhav Menon] Cosmopolitan Cultures and Oceanic Thought: Thinking through history across the waters	1	72
Emergent Areas of Impact	10	614.59
Advanced Sensors, Electronics and Communication	6	406.21
#87 [Strong Accept] [9] [Indian Institute of Technology Hyderabad-Dr. Antony Franklin] [SCUOLA SUPERIORE SANT'ANNA PISA, Italy-Prof. Luca Valcarengi] Network Slice Life-cycle Management for 5G Mobile Network	1	71.62
#1282 [Accept] [7.25] [Indian Institute of Technology Delhi-Prof. Madhusudan Singh] [UNIVERSITY OF OTTAWA, Canada-Prof. Ghassan Jabbour] Upconversion based NIR detectors	1	89.65
#588 [Weak Accept] [6.5] [Indian Institute of Technology Kharagpur-Prof. Bibhudatta Sahoo] [UNIVERSITY OF MINNESOTA, United States of America-Prof. Keshab K. Parhi] Architecture and Circuits for 5G Communication	1	76.79
#145 [Weak Accept] [6.25] [National Institute of Technology Tiruchirappalli-Dr. MUTHU CHIDAMBARANATHAN P] [TOMSK POLYTECHNIC UNIVERSITY, Russia-Prof. Dushantha Nalin Kumara Jayakody] Self-Energised UAV-assisted Communications for 5G Wireless Networks	1	73.23
#148 [Weak Accept] [6] [Indian Institute of Technology Indore-Prof. Vimal Bhatia] [UNIVERSITY OF EDINBURGH, United Kingdom-Prof. Tharmalingam Ratnarajah] Edge Caching for High Capacity Wireless Networks exploiting Big Data Analytics and Machine Learning	1	49.92
#1222 [Weak Accept] [6] [National Institute of Technology Warangal-Dr. Sreehari Rao Patri] [UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, United States of America-Prof. Pavan Kumar Hanumolu] Advanced CMOS clock recovery circuits for mobile applications	1	45
Artificial Intelligence and Cognitive Science	1	64.8
#995 [Accept] [7.33] [National Institute of Technology Silchar-Prof. Sivaji Bandyopadhyay] [UNIVERSITÄT DES SAARLANDES, Germany-Prof. Josef van Genabith] Multimodal Machine Translation - convergence of multiple modes of input	1	64.8
Advanced Functional and Meta Materials	3	143.58

#1508 [Accept] [7.75] [Indian Institute of Technology Kharagpur-Prof. Achintya Dhar] [QUEENSLAND UNIVERSITY OF TECHNOLOGY (QUT), Australia-Prof. Prashant Sonar] Inorganic-Organic Hybrid Flexible Solar Cells for Large Area Applications	1	44.4
#168 [Accept] [7.75] [Indian Institute of Technology Kharagpur-Prof. Venimadhav Adyam] [UNIVERSITY OF CAMBRIDGE, United Kingdom-Prof. Judith MacManus Driscoll] Engineering nanoionics interface for high ionic conductivity in batteries	1	49.98
#1000 [Weak Accept] [7] [Indian Institute of Technology Mandi-Dr. Aditi Halder] [NORTHEASTERN UNIVERSITY, United States of America-Prof. Sanjeev Mukerjee] Advancing the Fundamentals of Electrocatalysis with the use of Earth Abundant Materials for future of Energy and Transportation	1	49.2
Fundamental Research	19	1163.09
Applied and Interdisciplinary Sciences	6	348.2
#538 [Accept] [8.5] [Indian Institute of Technology Kanpur-Dr. Arijit Kundu] [BOSTON UNIVERSITY, United States of America-Prof. Anatoli Polkovnikov] Topology, interaction and environmental control of quantum information processing	1	50
#652 [Accept] [8.25] [Indian Institute of Technology Madras-Prof. Nitish R Mahapatra] [CASE WESTERN RESERVE UNIVERSITY, United States of America-Dr. Sathyamangla V. Naga Prasad] Molecular and genetic bases of cardiovascular diseases: key roles for chromogranin A	1	73.62
#1215 [Accept] [7.5] [Mahatma Gandhi University-Dr. Usha Rajamma] [UNIVERSITY OF READING, United Kingdom-Prof. Bhisudev Chakrabarti] Neural, behavioural, and genetic underpinnings of social behaviour in autism spectrum disorder and attention deficit hyperactivity disorder	1	74.08
#796 [Accept] [7.5] [Indian Institute of Technology Madras-Dr. Shanti Bhattacharya] [UNIVERSITY OF ST ANDREWS, United Kingdom-Prof. Kishan Dholakia] Shaped Light for Novel Studies in Imaging and Measurement	1	39.5
#680 [Accept] [7.25] [Indian Institute of Technology Bhubaneswar-Dr. Rajan Jha] [NANYANG TECHNOLOGICAL UNIVERSITY (NTU), Singapore-Dr. Lei Wei] Wearable devices based on multi material and post processed fiber	1	49.92
#947 [Weak Accept] [6] [Indian Institute of Technology Kharagpur-Dr. Jeevanjyoti Chakraborty] [PURDUE UNIVERSITY, United States of America-Dr. Ivan Christov] Micro- and nano-scale flows through deformable confinements	1	61.08
Basic Sciences - Physical Sc., Chemical Sc., Biological Sc.	5	355.94
#959 [Accept] [7.5] [Indian Institute of Technology Bombay-Prof. Kiran Kondabagil] [MONASH UNIVERSITY, Australia-Prof. Rommel Mathias] Insights into the mechanism of expeditious transmission of Influenza A virus across cells (IITMONV)	1	120
#830 [Accept] [7.5] [Indian Institute of Technology Mandi-Dr. Shyam Kumar Masakapalli] [UNIVERSITY OF OXFORD, United Kingdom-Prof. George Ratcliffe] Developing novel strategies to capture Phytopathogen-Agricultural host metabolic crosstalk by cell type specific 13C metabolic phenotyping	1	46.82
#309 [Accept] [6.75] [Indian Institute of Technology Roorkee-Prof. Rajdeep Chatterjee] [HOKKAIDO UNIVERSITY, Japan-Prof. Masaaki Kimura] Structure and reactions of nuclei away from the valley of stability	1	40.8
#695 [Accept] [6.75] [Banaras Hindu University-Prof. Sanjay Kumar] [BEN GURION UNIVERSITY OF THE NEGEV, Israel-Prof. Rony Granek] DNA Bubble Formation: From Physics to Biological functions	1	74.4
#242 [Accept] [7.75] [Banaras Hindu University-Dr. Venkatesh Singh] [TSINGHUA UNIVERSITY, China-Prof. QIAN YUE] Study of Low Energy Neutrino Physics and Dark Matter Candidate Searches with Ultra-Low-Energy Ultra-Low-Background Germanium Detectors	1	73.92
Computational and Mathematical Science	4	232.47

#445 [Strong Accept] [9] [Homi Bhabha National Institute-Prof. Sanoli Gun] [UNIVERSITÉ DE BORDEAUX, France-Prof. Yuri Bilu] Arithmetical aspects of the Fourier coefficients of modular forms	1	49.8
#235 [Strong Accept] [8.75] [Indian Institute of Technology Bombay-Prof. Neela Nataraj] [HUMBOLDT-UNIVERSITÄT ZU BERLIN, Germany-Prof. Carsten Carstensen] The Mathematics and Computation of Plates	1	49.72
#88 [Accept] [8.5] [Homi Bhabha National Institute-Prof. Amritanshu Prasad] [AUSTRALIAN NATIONAL UNIVERSITY (ANU), Australia-Prof. Uri Onn] Representation Zeta Functions	1	71.48
#1303 [Accept] [8.25] [Indian Institute of Technology Madras-Prof. Sivakumar K C] [WASHINGTON STATE UNIVERSITY, United States of America-Prof. Michael John Tsatsomeros] P-matrices, M-matrices and Inverse M-matrices; Applications and Generalizations	1	61.47
Earth, Atmosphere and Environmental Science	4	226.48
#1389 [Accept] [7] [Visva Bharati-Dr. PRATAP KUMAR PADHY] [UNIVERSITY OF SASKATCHEWAN, Canada-Prof. Soumya Niyogi] Fine particulate matters in the air environment and their cancer risks in human being	1	73.08
#1291 [Accept] [6.75] [Mahatma Gandhi University-Dr. Usha K Aravind] [BEN GURION UNIVERSITY OF THE NEGEV, Israel-Prof. Yoram Oren] Layer by layer (LbL) assisted antimicrobial membranes for water purification	1	44.6
#835 [Accept] [6.5] [SRM Institute of Science and Technology-Dr. Sanjay Kumar Mehta] [HOKKAIDO UNIVERSITY, Japan-Dr. Masatomo Fujiwara] Asian summer monsoon anticyclone (ASMA): Gateway of surface pollutants to the stratosphere	1	39.6
#807 [Accept] [6.25] [Indian Institute of Technology Madras-Dr. Sriram Venkatachalam] [UCL (UNIVERSITY COLLEGE LONDON), United Kingdom-Prof. Thorsten Stoesser] Experimental and Numerical Modelling of Wave-Vegetation-Structure Interactions (EMOD-WVSInt)	1	69.2
Innovation-Driven	9	603.77
Design Innovation	6	380.38
#981 [Strong Accept] [8.5] [Banaras Hindu University-Dr. Manish Arora] [MICHIGAN STATE UNIVERSITY, United States of America-Mr. Ben Van Dyke] History of Social Design in India and USA with special reference to Info-graphics, Advertising, Human-Centered Design and Marketing	1	78.72
#1048 [Strong Accept] [8.17] [Indian Institute of Technology Kharagpur-Prof. Pradip Kumar Ray] [PURDUE UNIVERSITY, United States of America-Prof. Denny Yu] Design and Development of Automated Systems for Ergonomic Evaluation of Human-Product Interface in Healthcare Systems	1	70.8
#582 [Accept] [7.25] [Indian Institute of Technology Patna-Dr. Sanjoy Kumar Parida] [AALBORG UNIVERSITY, Denmark-Prof. Zhe Chen] Development and Implementation of AI Driven Adaptive Microgrid Control and Protection Schemes	1	36.96
#676 [Accept] [5.75] [College of Engineering-Dr. Pratap Manohar Raval] [NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY, Norway-Dr. Rolee Aranya] Smart design for the uncatered: Making smart cities inclusive through design innovation	1	48.66
#1347 [Accept] [6.75] [Tata Institute of Social Sciences-Prof. Mythili - Ramchand] [UNIVERSITY OF SUSSEX, United Kingdom-Prof. Yusuf Sayed] Re-imagining Teacher Education	1	62.49
#555 [Accept] [5.75] [Indian Institute of Technology Bombay-Dr. Asish Kumar Sarangi] [UNIVERSITY OF BIRMINGHAM, United Kingdom-Dr. Jose Martin Herreros] Development of exhaust after-treatment systems for advanced low temperature combustion	1	82.75
Technologies for Forensics, Security and Safety	3	223.39

#683 [Strong Accept] [9] [Indian Institute of Technology Kharagpur-Prof. K. Sreenivasa Rao] [NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY, Norway-Prof. Raghavendra Ramachandra] Development of Anti-spoofing Strategies for Unseen Audio-Visual Attacks in Handheld Devices	1	80.4
#794 [Accept] [5.75] [Savitribai Phule Pune University-Dr. Richa Ashma] [UNIVERSITY OF TURKU, Finland-Dr. Leo Lahti] Microbial DNA fingerprint and metabolome: a potential marker for individualization	1	43.74
#489 [Accept] [6] [Indian Institute of Technology Delhi-Prof. Naresh Bhatnagar] [ARIZONA STATE UNIVERSITY, United States of America-Prof. Subramaniam D. Rajan] Design and Manufacturing of Ultra-high Velocity Bullet and Fragments Resistant Armor	1	99.25
Grand Total	83	5229.53