KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Indian Institute of Science Campus, Bengaluru - 560012

REPORT ON 47th SERIES OF STUDENT PROJECT PROGRAMME (SPP)

STUDENT PROJECT PROGRAMME (SPP)

KSCST initiated Student Project Programme (SPP) during 1978–79 to support innovative engineering student projects to improve the quality of education in technical institutions. The SPP program has been playing a very important role in engineering education for the last forty-five years and has become a flagship program of the Council. Products, Services, Innovation and technologies are needed for self-reliance, sustainable development and livelihoods.

The main purpose of this program is to bring out the hidden talent and innovative spirit of young engineers graduating from colleges across the State. Under this program, the Council has been providing both technical and financial support to selected projects undertaken by the final year students of science and engineering colleges across the State. KSCST has been playing a crucial role in building confidence and enhancing the capabilities of engineers graduating from the colleges in the State. So far KSCST has conducted 47 series of uninterrupted events under SPP and since inception supported more than 16,800 projects of engineering and science students.

Many projects, sponsored under this program, deal with technology applications relevant to the State. This process has been ably supported by more than hundred faculty and scientists of Indian Institute of Science (IISc), National Aerospace Laboratories (NAL), Central Manufacturing Technology Institute (CMTI), Karnataka State Council for Science and Technology (KSCST) and experts from various other research institutions and government departments. The Student Project Program of KSCST has attracted the attention of various incubation centers of engineering colleges, start-ups and technologists in the country.

The work discipline acquired by students in evolving and executing their projects, improves their analytical method and technical capabilities enabling better performance as professionals. The sponsorship, by Karnataka State Council for Science & Technology, has become a benchmark of quality for engineering student projects and these projects have been recognized and valued by both academic and industrial communities.

In this program, several completed projects have also been identified as promising and having commercial potential. Concerned faculty/students of such projects are encouraged to go ahead for further modification wherever required and to take-up field trials or for scaling up. Projects have always been diverse, reflecting the varied interests of the students/guides and some of them are found to be very innovative.

KSCST: 47th Series Student Project Programme (SPP): 2023-24

47th Series of Student Project Programme (SPP):

KSCST had invited project proposals from final year students of science and engineering colleges across the State. As per the recommendations of the expert committee, project proposals were invited during November 2023 from the final year BE, B. Arch., M.Tech., M.Sc., M.Tech., / M.Sc., (Agriculture), MBA & MCA students for sponsorship, under the 47th series of Student Project Programme (SPP).

The following are the broad themes/areas provided by the expert committee for submitting the project proposal:

- Structural Engineering, Geotechnical Engineering, Geomatics, Construction Technology and Management
- Water and Environment Engineering, Transportation Engineering, Industrial and System Engineering
- 3. Energy Engineering, Energy for Sustainable Development, Waste Management
- 4. Data Science, Cyber Security, Computing, Pattern Recognition and Image Processing, Signal Processing
- 5. Big Data, integrating Internet of Things, Artificial Intelligence and Data Engineering (agriculture, health, education, digital literacy)
- 6. Networking and Communication Engineering, Embedded Systems, VLSI Design, Robotics
- 7. Power System Engineering, Electric Vehicles, Smart Grid Technologies and Micro-grids
- 8. Materials and Design Engineering, Thermal and Fluid Engineering, Manufacturing Processes and Analysis
- 9. Control and Automation, Biomedical Engineering, Sensors and Measurement Techniques
- 10. Rural Engineering and Technical support, Smart cities and infrastructure development
- 11. Biological / Medical Science, Physical Science, Chemical Science, Agriculture Science, Biotechnology
- 12. Healthcare management, Information Technology, Resources and Environmental Management.

In response, KSCST received a total of 6043 project proposals covering these themes as advertised on their website and SPP posters. For the 47th Series of SPP, 201 engineering colleges, universities, and institutions statewide participated and submitted project proposals for consideration. These proposals underwent evaluation by experts from institutions such as the Indian Institute of Science (IISc), National Aerospace Laboratories (NAL), Central Manufacturing Technology Institute (CMTI), Karnataka State Council for Science and Technology (KSCST), and others. Eventually, 1,530 project proposals from 200 institutions across the state were approved for financial support, amounting to Rs. 77,39,550/- (Rupees Seventy-Seven Lakhs Thirty-Nine Thousand Five Hundred and Fifty).

| SI. No. | Course / Degree | Total No. of projects submitted | No. of Projects Approved | Total Amount Sanctioned (Rs.) |
|------------|----------------------|---------------------------------|-----------------------------|----------------------------------|
| 1 | B.E. | 5,340 | 1,285 | 64,36,300.00 |
| 2 | M.B.A | 193 | 63 | 2,39,250.00 |
| 3 | M.C.A. | 97 | 33 | 1,56,500 |
| 4 | M.Sc | 268 | 106 | 6,59,500 |
| 5 | M.Tech | 138 | 41 | 2,31,500.00 |
| 6 | M.Tech / M.Sc (Agri) | 7 | 2 | 16,500.00 |
| | Grand Total | 6,043 | 1,530 | 77,39,550 |

Under the 47th Series of SPP, the KSCST approved a total of 1530 projects for sponsorship across 200 institutions. As part of this initiative, KSCST proposed to the AI and Robotics Technology Park at IISc., to provide support for selected projects focused on AI, ML, and robotics from the sanctioned 1530 projects.

After productive discussions and meetings with ART-Park officials, they agreed to fund 124 projects with a budget of Rs. 6,23,500/-. Here are the key details of the projects supported under ART-PARK at IISc:

Key Details of the Projects supported under ART-PARK, IISc:

• Total number of projects : 124

B.E. : 113 Projects
M.C.A. : 4 Projects
M.Sc. : 3 Projects
M.Tech. : 4 Projects

Total number of colleges / institutions : 74Number of districts covered : 24

Out of the 1530 sanctioned projects, 124 projects received financial support from the AI & Robotics Technology Park (ART-Park) at IISc, amounting to Rs. 6,23,500/-. Additionally, KSCST allocated financial support of Rs. 71,16,050/- to 1406 projects, which includes 57 Biofuel projects supported by the Karnataka State Bioenergy Development Board (KSBDB), GoK, with a budget of Rs. 3,04,000/-.

List of bioenergy projects sanctioned under 47th series SPP

| SI. No. | Course | Selected for midterm evaluation | Sanctioned Amount in Rs. |
|------------|---------|---------------------------------|-----------------------------|
| 1. | BE | 34 | 1,89,500 |
| 2. | M.Tech | 03 | 19,500 |
| 3. | M.Sc. | 09 | 55,000 |
| 4. | MBA/MCA | 11 | 40,000 |
| | | 57 | 3,04,000 |

Amount of Rupees Three Lakhs Four Thousand only

As of June 2024, SPP grants were disbursed to 188 out of the 200 approved colleges in four batches. The remaining 12 colleges are pending disbursement of Rs. 2,18,000/- due to non-submission of Utilization Certificates (UC) / Statements of Expenditure (SE) for previous years. Additionally, two institutions have not provided their bank account details.

Mid-term evaluations of the supported projects took place between May and June 2024. 68 online sessions were conducted with the technical support of 41 experts. Out of the 1530 projects scheduled for online evaluation, 111 projects were absent during the mid-term evaluation, while 1419 projects were evaluated.

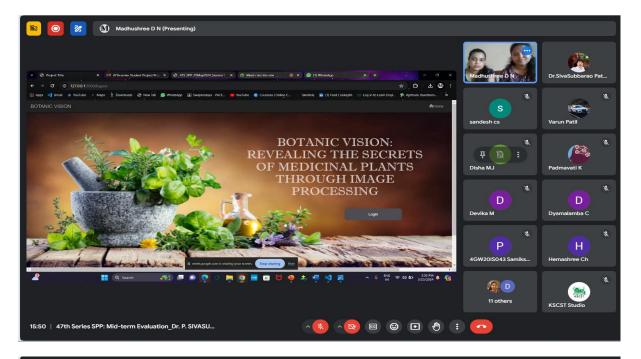
A total of 354 projects have been recommended by subject experts for the Annual State-level Poster Presentation and Exhibition. This selection comprises 153 projects for the Poster Presentation and 201 projects for the Exhibition, involving 142 engineering institutions across the state.

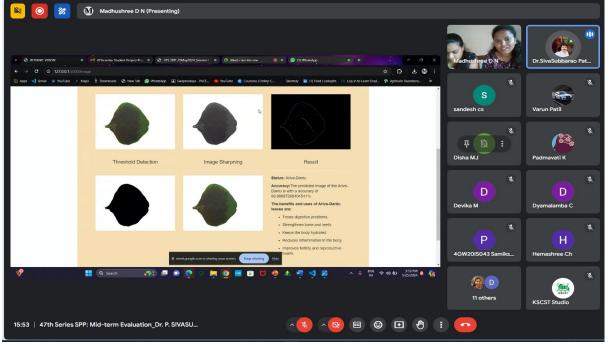
The projects selected for the State-level poster presentation and exhibition include 30 projects supported by ART-Park, IISc. Among these, 8 projects are designated for Poster presentation, while 22 projects are for the Exhibit project.

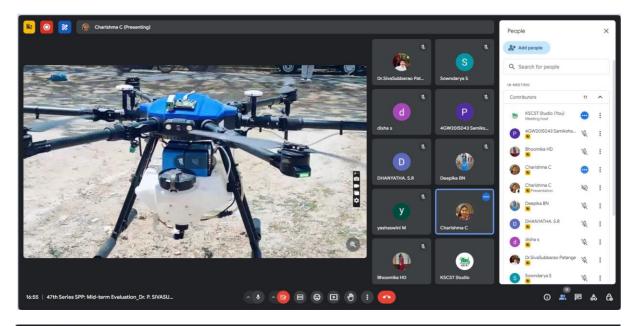
Additionally, for the State-Level Poster Presentation and Exhibition, 15 projects are supported by KSBDB, GoK. Out of these, 10 projects are allocated for Poster presentation, and 5 projects are for the Exhibit project.

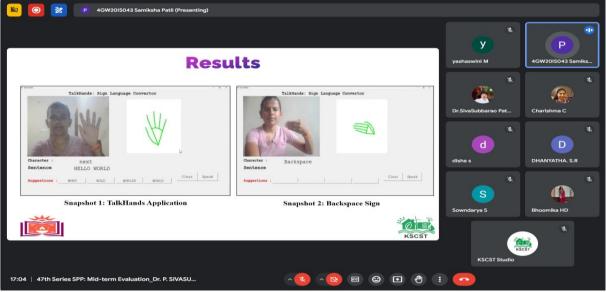
KSCST will be organizing Annual State-Level Poster Presentation and Exhibition of projects at Sharnbasva University, Kalaburagi on 9-10 August 2024.

Glimpses of midterm evaluation conducted online



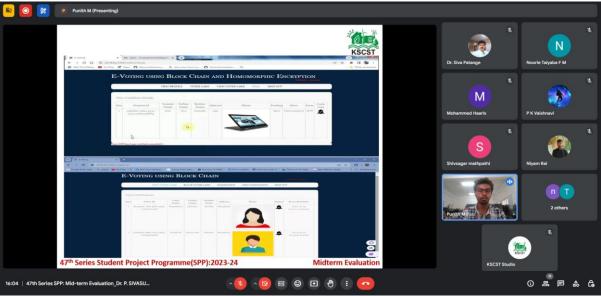


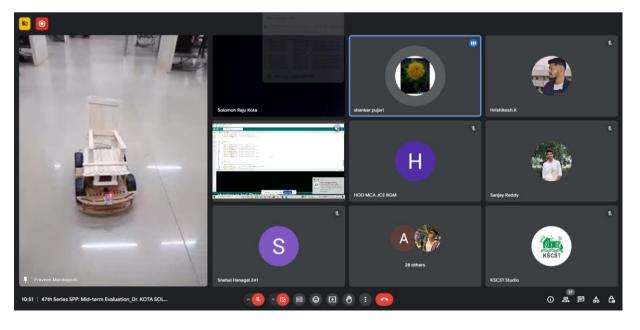


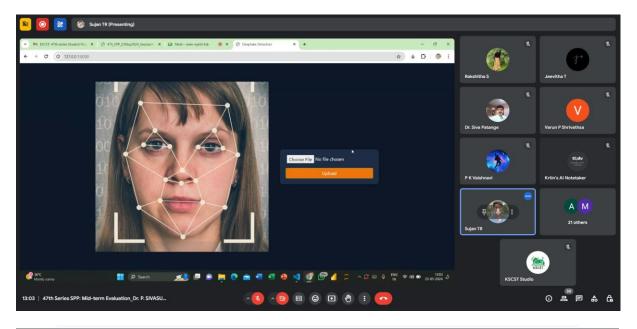


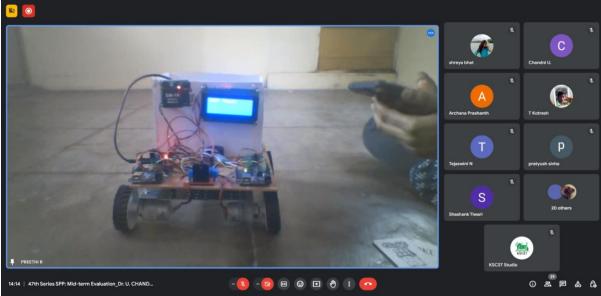


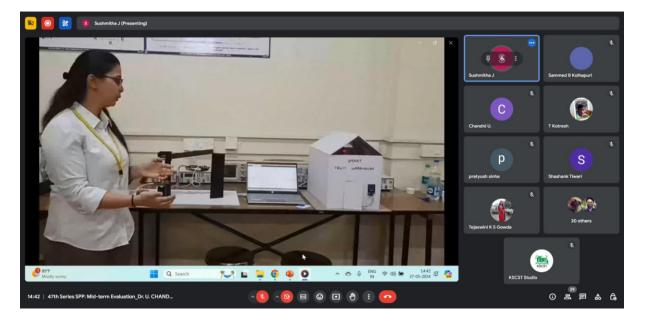


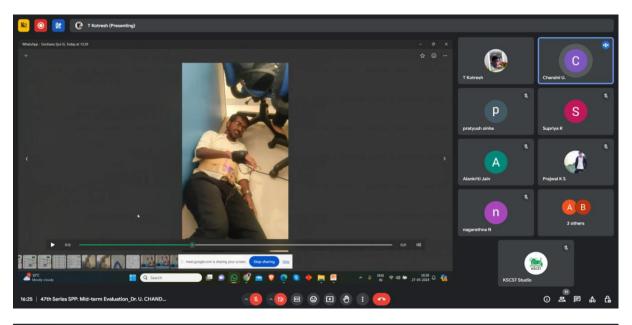




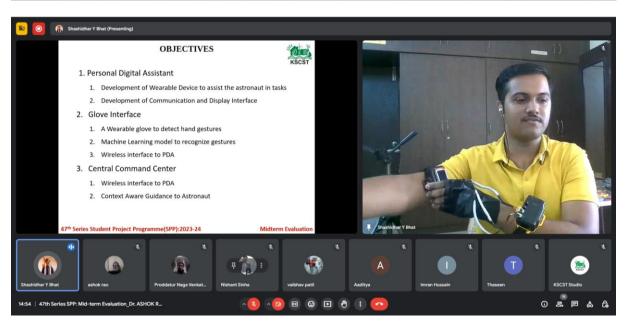


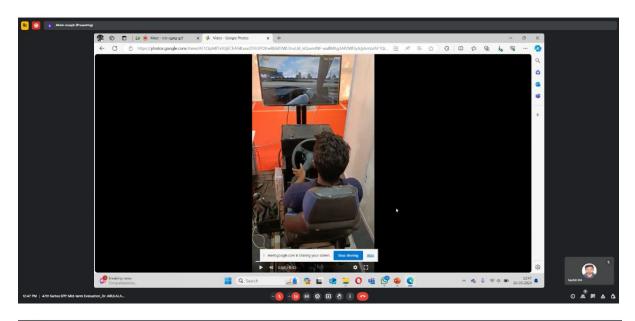




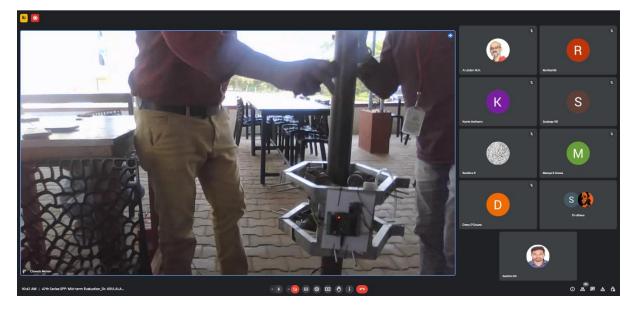












47th series of Student Project Programme (SPP): 2023-24

State-Level Projects Poster presentation and Exhibition to be held at Sharnbasva University, Kalaburagi on 9-10 August 2024

College Wise List of projects selected for Poster presentation and Exhibition projects

| | | Poster Presentation (A) | for Exhibit project (B) | projects Selected for Poster and Exhibition (A+B) |
|--|-----|-------------------------------|-------------------------------|---|
| A.J. INSTITUTE OF ENGINEERING AND TECHNOLOGY, MANGALURU | 7 | 1 | - | 1 |
| 2. A.M.C. ENGINEERING COLLEGE, BENGALURU | 6 | - | 1 | 1 |
| 3. A.P.S. COLLEGE OF ENGINEERING, BENGALURU | 5 | - | 2 | 2 |
| 4. A.T.M.E. COLLEGE OF ENGINEERING, MYSURU | 8 | 1 | 2 | 3 |
| 5. ACHARYA INSTITUTE OF TECHNOLOGY, BENGALURU | 10 | - | 1 | 1 |
| 6. ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU | 9 | 1 | 2 | 3 |
| 7. AKSHAYA INSTITUTE OF TECHNOLOGY, TUMAKURU | 5 | 1 | - | 1 |
| 8. ALLIANCE COLLEGE OF ENGINEERING AND DESIGN, ALLIANCE UNIVERSITY, BENGALURU | 3 | 1 | - | 1 |
| ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI | 22 | 1 | 1 | 2 |
| AMRITA VISHWA VIDYAPEETHAM BENGALURU CAMPUS, BENGALURU | 5 | - | 3 | 3 |
| ANGADI INSTITUTE OF TECHNOLOGY AND MANAGEMENT, BELAGAAVI | 8 | 1 | 2 | 3 |
| 12. ANJUMAN INSTITUTE OF TECHNOLOGY AND MANAGEMENT, BHATKAL | 2 | 1 | - | 1 |
| 13. ATRIA INSTITUTE OF TECHNOLOGY, BENGALURU | 16 | 2 | 2 | 4 |
| 14. B.G.S. INSTITUTE OF TECHNOLOGY, MANDYA | 18 | - | 1+1 | 2 |
| 15. B.L.D.E.A'S V.P. DR. P.G.HALAKATTI COLLEGE OF ENGINEERING AND TECHNOLOGY, VIJAYAPURA | 14 | 1 | 5 | 6 |
| B.M.S. COLLEGE OF ENGINEERING, BULL TEMPLE ROAD, BENGALURU | 12 | 1 | 2 | 3 |
| 17. B.M.S. INSTITUTE OF TECHNOLOGY AND MANAGEMENT, YELAHANKA, BENGALURU | 9 | 1 | - | 1 |
| 18. B.N.M. INSTITUTE OF TECHNOLOGY, BENGALURU | 2 | - | 2 | 2 |
| B.V.V. SANGHA'S BASAVESHWAR ENGINEERING COLLEGE, BAGALKOT | 11 | 2 | 3 | 5 |
| 20. B.V.V.S BILURUR GURUBASAVA MAHASWAMIJI INSTITUTE OF TECHNOLOGY, MUDHOL | 9 | 1 | 1 | 2 |
| 21. BALLARI INSTITUTE OF TECHNOLOGY AND MANAGEMENT, BALLARI | 9 | 1 | 1 | 2 |
| 22. BANGALORE INSTITUTE OF TECHNOLOGY, BENGALURU | 27 | 3 | 3 | 6 |
| 23. BAPUJI INSTITUTE OF ENGINEERING AND TECHNOLOGY, DAVANAGERE | 14 | 3 | 2 | 5 |
| 24. BASAVAKALYAN ENGINEERING COLLEGE, BASAVAKALYANA | 2 | - | 1 | 1 |
| 25. BEARYS INSTITUTE OF TECHNOLOGY, MANGALURU | 7 | - | 1 | 1 |
| 26. BRINDAVAN COLLEGE OF ENGINEERING, BENGALURU | J 4 | - | 1 | 1 |
| 27. C.M.R. INSTITUTE OF TECHNOLOGY, BENGALURU | 5 | | 1 | 1 |

| 28. | CAMBRIDGE INSTITUTE OF TECHNOLOGY, | 8 | _ | 1 1 | 1 |
|-----|--|----|-----|-----|----|
| 20. | BENGALURU | O | - | ' | 1 |
| 29. | CANARA ENGINEERING COLLEGE, MANGALURU | 12 | 2 | 2 | 4 |
| 30. | CHANNABASAVESHWARA INSTITUTE OF TECHNOLOGY, TUMAKURU | 11 | 3 | 1 | 4 |
| 31. | CHRIST DEEMED TO BE UNIVERSITY, KENGERI CAMPUS, BENGALURU | 5 | - | 2 | 2 |
| 32. | CITY ENGINEERING COLLEGE, BENGALURU | 4 | - | 2 | 2 |
| 33. | COLLEGE OF HORTICULTURE BENGALURU | 1 | 1 | - | 1 |
| 34. | COORG INSTITUTE OF TECHNOLOGY, KODAGU | 5 | - | 1 | 1 |
| 35. | DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT, BENGALURU | 18 | - | 1+4 | 5 |
| 36. | DAYANANDA SAGAR COLLEGE OF ENGINEERING, BENGALURU | 55 | 5 | 9 | 14 |
| 37. | DAYANANDA SAGAR UNIVERSITY, BENGALURU | 13 | 1 | 1 | 2 |
| 38. | DON BOSCO INSTITUTE OF TECHNOLOGY, BENGALURU | 18 | 1 | 2 | 3 |
| 39. | Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU | 9 | - | 1 | 1 |
| 40. | EAST POINT COLLEGE OF ENGINEERING AND TECHNOLOGY, BENGALURU | 7 | 2 | 1 | 3 |
| 41. | EAST WEST INSTITUTE OF TECHNOLOGY, BENGALURU | 16 | - | 2 | 2 |
| 42. | G. MADEGOWDA INSTITUTE OF TECHNOLOGY, MADDUR | 6 | 1 | 1 | 2 |
| 43. | G.M. INSTITUTE OF TECHNOLOGY, DAVANAGERE | 20 | 3 | 1+1 | 5 |
| 44. | G.S.S.S. INSTITUTE OF ENGINEERING AND TECHNOLOGY FOR WOMEN, MYSURU | 10 | 2 | - | 2 |
| 45. | GARDEN CITY UNIVERSITY, BENGALURU | 13 | 2+2 | - | 4 |
| 46. | GLOBAL ACADEMY OF TECHNOLOGY, BENGALURU | 19 | - | 1+1 | 2 |
| 47. | GOPALAN COLLEGE OF ENGINEERING AND MANAGEMENT, BENGALURU | 5 | 1 | 3 | 4 |
| 48. | GOVERNMENT ENGINEERING COLLEGE, DODDAMANNUGUDDE, RAMANAGARA | 1 | - | 1 | 1 |
| 49. | GOVERNMENT ENGINEERING COLLEGE, MOSALEHOSAHALLI, HASSAN | 2 | - | 1 | 1 |
| 50. | GURU NANAK DEV ENGINEERING COLLEGE, BIDAR | 15 | - | 1+1 | 2 |
| 51. | H.K.B.K. COLLEGE OF ENGINEERING, BENGALURU | 12 | 1 | - | 1 |
| 52. | H.K.E SOCIETY'S SIR M. VISVESVARAYA COLLEGE OF ENGINEERING, RAICHUR | 4 | - | 2 | 2 |
| 53. | HIRASUGAR INSTIUTE OF TECHNOLOGY, BELAGAAVI | 12 | 1 | 1+1 | 3 |
| 54. | J.S.S ACADEMY OF HIGHER EDUCATION AND RESEARCH, MYSURU | 1 | 1 | - | 1 |
| 55. | J.S.S. ACADEMY OF TECHNICAL EDUCATION, BENGALURU | 17 | 1+2 | 1 | 4 |
| 56. | J.S.S. SCIENCE AND TECHNOLOGY UNIVERSITY, MYSURU | 10 | 2 | - | 2 |
| 57. | JAIN (DEEMED - TO - BE UNIVERSITY), SCHOOL OF SCIENCES, J.C ROAD, BENGALURU | 3 | 1 | - | 1 |
| 58. | JAIN COLLEGE OF ENGINEERING AND RESEARCH, BELAGAAVI | 3 | 1 | 1 | 2 |
| 59. | JAIN COLLEGE OF ENGINEERING AND TECHNOLOGY, DHARWAD | 14 | 2 | 1 | 3 |
| 60. | JAIN COLLEGE OF ENGINEERING, BELAGAAVI | 17 | 2 | 1 | 3 |
| 61. | JAIN DEEMED TO BE UNIVERSITY FACULTY OF ENGINEERING AND TECHNOLOGY, RAMANAGARA | 3 | - | 1 | 1 |

| 62. | JAIN INSTITUTE OF TECHNOLOGY, DAVANAGERE | 12 | 1 | - | 1 |
|-----|--|----|-----|---|---|
| 63. | JAWAHARLAL NEHRU NATIONAL COLLEGE OF ENGINEERING, SHIVAMOGGA | 13 | 1+2 | - | 3 |
| 64. | JYOTHY INSTITUTE OF TECHNOLOGY, BENGALURU | 23 | 3 | 1 | 4 |
| 65. | K.L.E SOCIETY'S K.L.E. COLLEGE OF ENGINEERING AND TECHNOLOGY, CHIKODI | 15 | 1 | 1 | 2 |
| 66. | K.L.E. Dr. M. S. SHESHGIRI COLLEGE OF ENGINEERING AND TECHNOLOGY, BELAGAVI | 10 | 1 | - | 1 |
| 67. | K.L.E. INSTITUTE OF TECHNOLOGY, HUBBALLI | 17 | 2 | 2 | 4 |
| 68. | K.L.E. SOCIETY'S BASAVAPRABHU KORE ARTS SCIENCE AND COMMERCE COLLEGE, CHIKODI | 1 | 1 | - | 1 |
| 69. | K.L.E. SOCIETY's S. NIJALINGAPPA COLLEGE RAJAJINAGAR, BENGALURU | 4 | - | 1 | 1 |
| 70. | K.L.E. TECHNOLOGICAL UNIVERSITY, HUBBALLI | 1 | 1 | - | 1 |
| 71. | K.L.S. GOGTE INSTITUTE OF TECHNOLOGY, UDYAMBAG, BELAGAAVI | 12 | 1 | 2 | 3 |
| 72. | K.L.S. VISHWANATHRAO DESHPANDE INSTITUTE OF TECHNOLOGY, HALIYAL, UTTARA KANNADA | 5 | - | 1 | 1 |
| 73. | K.S. INSTITUTE OF TECHNOLOGY, BENGALURU | 8 | - | 2 | 2 |
| 74. | K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU | 9 | 1 | - | 1 |
| 75. | K.V.G. COLLEGE OF ENGINEERING, SULLIA, DAKSHINA KANNADA | 3 | - | 1 | 1 |
| 76. | KALPATARU INSTITUTE OF TECHNOLOGY, TIPTUR | 2 | 1 | - | 1 |
| 77. | KARNATAK UNIVERSITY, DHARWAD | 2 | 2 | - | 2 |
| 78. | KRISTU JAYANTI COLLEGE, AUTONOMOUS, KOTHANUR PO, BENGALURU | 4 | 1 | - | 1 |
| 79. | M.S RAMAIAH COLLEGE OF ARTS SCIENCE AND COMMERCE, BENGALURU | 7 | 2 | - | 2 |
| 80. | M.S. RAMAIAH UNIVERSITY OF APPLIED SCIENCES, BENGALURU | 15 | 3 | 1 | 4 |
| 81. | M.V.J. COLLEGE OF ENGINEERING, BENGALURU | 11 | - | 4 | 4 |
| 82. | MAHARAJA INSTITUTE OF TECHNOLOGY, MYSURU | 6 | - | 1 | 1 |
| 83. | MAHARAJA INSTITUTE OF TECHNOLOGY, NANJANGUD TALUK, THANDAVAPURA | 8 | 1 | 1 | 2 |
| 84. | MALNAD COLLEGE OF ENGINEERING, HASSAN | 6 | 1 | - | 1 |
| 85. | MANGALORE INSTITUTE OF TECHNOLOGY AND ENGINEERING, MOODBIDRI | 24 | 5 | 4 | 9 |
| 86. | MANIPAL INSTITUTE OF TECHNOLOGY, MAHE, MANIPAL | 1 | 1 | - | 1 |
| 87. | MOUNT CARMEL COLLEGE AUTONOMOUS, BENGALURU | 1 | 1 | - | 1 |
| 88. | N.I.E. INSTITUTE OF TECHNOLOGY, MYSURU | 5 | - | 2 | 2 |
| 89. | N.M.A.M. INSTITUTE OF TECHNOLOGY, NITTE | 11 | 1 | 2 | 3 |
| 90. | N.M.K.R.V COLLEGE FOR WOMEN, BENGALURU | 4 | - | 1 | 1 |
| 91. | NAGARJUNA COLLEGE OF ENGINEERING AND TECHNOLOGY, BENGALURU | 10 | 1 | 2 | 3 |
| 92. | NAVKIS COLLEGE OF ENGINEERING, HASSAN | 6 | - | 2 | 2 |
| 93. | NEW HORIZON COLLEGE OF ENGINEERING, BENGALURU | 51 | 3 | 6 | 9 |
| 94. | NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY, BENGALURU | 15 | 2 | 1 | 3 |
| 95. | P.D.A. COLLEGE OF ENGINEERING, KALABURAGI | 15 | 2 | 1 | 3 |
| 96. | P.E.S. COLLEGE OF ENGINEERING, MANDYA | 4 | 2 | - | 2 |

| 97. P.E.S. INSTITUTE OF TECHNOLOGY AND MANAGEMENT, SHIVAMOGGA | 18 | 1 | 1 | 2 |
|---|----|-----|-----|----|
| 98. P.E.S. UNIVERSITY, BENGALURU | 1 | 1 | - | 1 |
| 99. PADMASHREE INSTITUTE OF MANAGEMENT AND SCIENCES, BENGALURU | 7 | 3 | - | 3 |
| 100. PRESIDENCY UNIVERSITY, BENGALURU | 2 | 1 | - | 1 |
| 101. PROUDHADEVARAYA INSTITUTE OF TECHNOLOGY, HOSPETE, BALLARI | 1 | - | 1 | 1 |
| 102. R.N.S. INSTITUTE OF TECHNOLOGY, BENGALURU | 6 | - | 3 | 3 |
| 103. R.R. INSTITUTE OF TECHNOLOGY, BENGALURU | 10 | 1 | 2 | 3 |
| 104. R.V. COLLEGE OF ENGINEERING, BENGALURU | 8 | 2 | - | 2 |
| 105. R.V. INSTITUTE OF TECHNOLOGY AND MANAGEMENT, BENGALURU | 7 | - | 2 | 2 |
| 106. RAJEEV INSTITUTE OF TECHNOLOGY, HASSAN | 8 | 1 | - | 1 |
| 107. RAMAIAH INSTITUTE OF TECHNOLOGY, BENGALURU | 13 | 4 | 1+1 | 6 |
| 108. REVA UNIVERSITY, BENGALURU | 62 | 1+1 | 1+9 | 12 |
| 109. S.D.M. COLLEGE OF ENGINEERING AND TECHNOLOGY, DHARWAD | 14 | 1 | 3 | 4 |
| 110. S.D.M. INSTITUTE OF TECHNOLOGY, UJIRE | 2 | 1 | - | 1 |
| 111. S.E.A. COLLEGE OF ENGINEERING AND TECHNOLOGY, BENGALURU | 4 | 2 | - | 2 |
| 112. S.G. BALEKUNDRI INSTITUTE OF TECHNOLOGY, BELAGAAVI | 12 | 1 | 1+2 | 4 |
| 113. S.J.B. INSTITUTE OF TECHNOLOGY, BENGALURU | 10 | | 1 | 1 |
| 114. S.J.C. INSTITUTE OF TECHNOLOGY, CHIKKABALLAPURA | 24 | 1 | 4 | 5 |
| 115. S.J.M. INSTITUTE OF TECHNOLOGY, CHITRADURGA | 4 | | 1 | 1 |
| 116. SAHYADRI COLLEGE OF ENGINEERING AND MANAGEMENT, MANGALURU | 25 | 1 | 5 | 6 |
| 117. SAI VIDYA INSTITUTE OF TECHNOLOGY, BENGALURU | 6 | - | 4 | 4 |
| 118. SAPTHAGIRI COLLEGE OF ENGINEERING, BENGALURU | 7 | 2 | 1 | 3 |
| 119. SECAB INSTITUTE OF ENGINEERING AND TECHNOLOGY, VIJAYAPURA | 3 | 2 | - | 2 |
| 120. SHARNBASVA UNIVERSITY, KALABURAGI | 9 | - | 2 | 2 |
| 121. SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, UDUPI | 4 | - | 3 | 3 |
| 122. SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMAKURU | 11 | - | 2 | 2 |
| 123. SIR M.VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU | 9 | 1 | 1 | 2 |
| 124. SMT. KAMALA AND SRI VENKAPPA M. AGADI COLLEGE OF ENGINEERING AND TECHNOLOGY, GADAG | 8 | 1 | - | 1 |
| 125. SRI SAIRAM COLLEGE OF ENGINEERING, BENGALURU | 5 | - | 1+1 | 2 |
| 126. SRI SIDDHARTHA INSTITUTE OF TECHNOLOGY, TUMAKURU | 14 | 1 | 2 | 3 |
| 127. SRI VENKATESHWARA COLLEGE OF ENGINEERING, BENGALURU | 8 | 1 | - | 1 |
| 128. ST. ALOYSIUS (DEEMED TO BE UNIVERSITY), MANGALURU | 4 | 1 | - | 1 |
| 129. ST. JOSEPH ENGINEERING COLLEGE, MANGALURU | 13 | 2 | 1 | 3 |
| 130. ST. JOSEPHS UNIVERSITY, BENGALURU | 3 | 1 | - | 1 |
| 131. T. JOHN INSTITUTE OF TECHNOLOGY, BENGALURU | 1 | 1 | - | 1 |
| 132. THE NATIONAL INSTITUTE OF ENGINEERING, MYSURU | 10 | 3 | 1 | 4 |

| 133. THE OXFORD COLLEGE OF ENGINEERING, BENGALURU | 10 | - | 1+2 | 3 |
|---|------|-----|-----|-----|
| 134. UNIVERSITY VISVESVARAYA COLLEGE OF ENGINEERING, BENGALURU | 1 | - | 1 | 1 |
| 135. V.S.M'S SOMASHEKHAR R. KOTHIWALE INSTITUTE OF TECHNOLOGY, NIPPANI, BELAGAAVI | 4 | - | 1 | 1 |
| 136. VEMANA INSTITUTE OF TECHNOLOGY, BENGALURU | 5 | - | 1 | 1 |
| 137. VIDYA VIKAS INSTITUTE OF ENGINEERING AND TECHNOLOGY, MYSURU | 9 | 2 | 1 | 3 |
| 138. VIDYAVARDHAKA COLLEGE OF ENGINEERING, MYSURU | 19 | 3 | 2 | 5 |
| 139. VIJAYANAGARA SRI KRISHNADEVARAYA UNIVERSITY, BALLARI | 1 | 1 | - | 1 |
| 140. VISVESVARAYA TECHNOLOGICAL UNIVERSITY, DEPARTMENT OF P.G. STUDIES, BELAGAAVI | 1 | - | 1 | 1 |
| 141. VIVEKANANDA COLLEGE OF ENGINEERING AND TECHNOLOGY, PUTTUR, DAKSHINA KANNADA | 12 | 1 | 1 | 2 |
| 142. YENEPOYA INSTITUTE OF TECHNOLOGY, MOODBIDRI, MANGALURU | 11 | - | 1+1 | 2 |
| Grand Total | 1385 | 153 | 201 | 354 |

Note: The projects highlighted in grey indicate the selected projects for Poster / Exhibition projects supported by ART-Park, IISc.

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Indian Institute of Science Campus, Bengaluru – 560 012 Website: www.kscst.org.in || Email: spp@kscst.org.in || Tel: 080-2334 1652,2334 8848/49/40

47th series of Student Project Programme (SPP): 2023-24

State Level Seminar and Exhibition to be held at Sharnbasva University, Kalaburagi on 9-10 August 2024

Branch-Wise List of projects selected for Poster presentation and Exhibition projects

| Branch of Engineering / Science | Total Approved Proposals | Projects Selected for Poster Presentation | Projects Selected for Exhibit project | ART-PARK Sponsored Project selected for Poster Presentation | ART-PARK Sponsored Project selected for Exhibit project |
|--|--------------------------------|--|--|--|--|
| AERONAUTICAL ENGINEERING | 33 | 4 | 4 | - | - |
| ARTIFICIAL INTELLIGENCE AND DATA SCIENCE | 5 | - | 1 | - | - |
| ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 53 | 4 | 8 | - | - |
| 4. AUTOMOBILE ENGINEERING | 7 | - | 1 | - | - |
| 5. BIOCHEMISTRY | 10 | 4 | - | - | - |
| 6. BIOTECHNOLOGY | 44 | 8 | 2 | 1 | - |
| 7. BOTANY | 2 | 1 | - | - | - |
| 8. CHEMICAL ENGINEERING | 9 | 2 | - | - | - |
| 9. CHEMISTRY | 21 | 2 | - | - | - |
| 10. CIVIL ENGINEERING | 157 | 24 | 7 | - | - |
| 11. COMPUTER AIDED DESIGN OF STRUCTURES | 1 | 1 | - | - | - |
| 12. COMPUTER APPLICATIONS | 32 | 9 | 2 | 1 | - |
| 13. COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE ENGINEERING | 1 | - | 1 | - | 1 |
| 14. COMPUTER SCIENCE AND ENGINEERING | 332 | 35 | 55 | 3 | 12 |
| 15. DATA SCIENCE | 9 | 1 | 3 | 1 | - |
| 16. DIGITAL COMMUNICATION AND NETWORKING | 2 | - | 1 | - | - |
| 17. ELECTRICAL AND ELECTRONICS ENGINEERING | 85 | 4 | 14 | - | - |
| 18. ELECTRONICS AND COMMUNICATION ENGINEERING | 255 | 13 | 48 | 1 | 4 |
| 19. ELECTRONICS AND COMPUTER ENGINEERING | 5 | - | 1 | - | - |
| 20. ELECTRONICS AND INSTRUMENTATION ENGINEERING | 14 | 1 | 2 | - | - |
| 21. ELECTRONICS AND TELECOMMUNICATION ENGINEERING | 12 | - | 2 | - | - |
| 22. ENVIRONMENTAL ENGINEERING | 4 | 1 | - | - | - |
| 23. ENVIRONMENTAL SCIENCE | 1 | 1 | - | - | - |
| 24. FINANCE AND HUMAN RESOURCE | 2 | 2 | - | - | - |

KSCST: 47th Series Student Project Programme (SPP): 2023-24

| 25. FOOD SCIENCE AND TECHNOLOGY | 2 | 1 | - | - | - |
|---|------|-----|-----|---|----|
| 26. INFORMATION SCIENCE AND ENGINEERING | 142 | 7 | 14 | 1 | 2 |
| 27. LIFE SCIENCE | 4 | 1 | - | - | - |
| 28. MARKETING | 2 | 1 | - | - | - |
| 29. MBA | 52 | 6 | - | - | - |
| 30. MECHANICAL ENGINEERING | 139 | 5 | 28 | - | 2 |
| 31. MECHATRONICS ENGINEERING | 4 | - | 1 | - | - |
| 32. MEDICAL ELECTRONICS | 5 | 1 | - | - | - |
| 33. MICROBIOLOGY | 9 | 3 | - | - | - |
| 34. MINERAL PROCESSING | 1 | 1 | - | - | - |
| 35. ORGANIC CHEMISTRY | 5 | 1 | - | - | - |
| 36. PHARMA BUSINESS MANAGEMENT | 1 | 1 | - | - | - |
| 37. PHARMACY | 2 | 1 | - | - | - |
| 38. PLANT PATHOLOGY | 1 | 1 | - | - | - |
| 39. POLYMER SCIENCE AND TECHNOLOGY | 1 | 1 | - | - | - |
| 40. ROBOTICS AND AUTOMATION | 4 | - | 4 | - | 1 |
| 41. SOFTWARE TECHNOLOGY | 2 | 1 | - | - | - |
| 42. STRUCTURAL ENGINEERING | 10 | 4 | - | - | - |
| 43. TELECOMMUNICATION ENGINEERING | 1 | - | 1 | - | - |
| 44. ZOOLOGY | 1 | | 1 | - | - |
| Grand Total | 1484 | 153 | 201 | 8 | 22 |

47th series of Student Project Programme (SPP): 2023-24

State-Level Projects Poster presentation and Exhibition to be held at Sharnbasva University, Kalaburagi on 9-10 August 2024

KSBDB, GoK Supported projects – Branch-Wise List of projects selected for Poster presentation and Exhibition projects

| SI. No. | Course | Selected Poster presentation | Selected Exhibition |
|------------|-----------|------------------------------|------------------------|
| 1. | BE | 02 | 05 |
| 2. | M.Tech | 01 | - |
| 3. | M.Sc. | 04 | - |
| 4. | MBA / MCA | 03 | - |
| | Total | 15 | |

47th series of Student Project Programme (SPP): 2023-24

State-Level Projects Poster presentation and Exhibition to be held at Sharnbasva University, Kalaburagi on 9-10 August 2024

ART-Park Supported projects - College Wise List of projects selected for Poster presentation and Exhibition projects

| | Name of the Institution | ART-PARK Sponsored Project selected for Poster Presentation | ART-PARK Sponsored Project selected for Exhibit project | Total No. of Projects Selected for Poster / Exhibit |
|-----|--|--|---|---|
| 1. | A.J. INSTITUTE OF ENGINEERING AND TECHNOLOGY, MANGALURU | 1 | - | 1 |
| 2. | AMRITA VISHWA VIDYAPEETHAM BENGALURU CAMPUS, BENGALURU | - | 3 | 3 |
| 3. | B.G.S. INSTITUTE OF TECHNOLOGY, MANDYA | - | 1 | 1 |
| 4. | B.L.D.E.A'S V.P. DR. P.G.HALAKATTI COLLEGE OF ENGINEERING AND TECHNOLOGY, VIJAYAPURA | 1 | - | 1 |
| 5. | BASAVAKALYAN ENGINEERING COLLEGE, BASAVAKALYANA | - | 1 | 1 |
| 6. | BRINDAVAN COLLEGE OF ENGINEERING, BENGALURU | - | 1 | 1 |
| 7. | DAYANANDA SAGAR COLLEGE OF ENGINEERING, BENGALURU | - | 1 | 1 |
| 8. | G.M. INSTITUTE OF TECHNOLOGY, DAVANAGERE | - | 1 | 1 |
| 9. | GARDEN CITY UNIVERSITY, BENGALURU | 2 | - | 2 |
| 10. | GLOBAL ACADEMY OF TECHNOLOGY, BENGALURU | - | 1 | 1 |
| 11. | GOVERNMENT ENGINEERING COLLEGE, DODDAMANNUGUDDE, RAMANAGARA | - | 1 | 1 |
| 12. | GURU NANAK DEV ENGINEERING COLLEGE, BIDAR | - | 1 | 1 |
| 13. | H.K.B.K. COLLEGE OF ENGINEERING, BENGALURU | 1 | - | 1 |
| 14. | HIRASUGAR INSTIUTE OF TECHNOLOGY, BELAGAAVI | - | 1 | 1 |
| 15. | J.S.S. ACADEMY OF TECHNICAL EDUCATION, BENGALURU | 1 | ı | 1 |
| 16. | JAWAHARLAL NEHRU NATIONAL COLLEGE OF ENGINEERING, SHIVAMOGGA | 1 | - | 1 |
| 17. | M.S. RAMAIAH UNIVERSITY OF APPLIED SCIENCES, BENGALURU | - | 1 | 1 |
| 18. | RAMAIAH INSTITUTE OF TECHNOLOGY, BENGALURU | - | 1 | 1 |
| 19. | REVA UNIVERSITY, BENGALURU | 1 | 1 | 2 |
| 20. | S.G. BALEKUNDRI INSTITUTE OF TECHNOLOGY, BELAGAAVI | - | 1 | 1 |
| 21. | S.J.B. INSTITUTE OF TECHNOLOGY, BENGALURU | - | 1 | 1 |
| 22. | S.J.M. INSTITUTE OF TECHNOLOGY, CHITRADURGA | - | 1 | 1 |
| 23. | SRI SAIRAM COLLEGE OF ENGINEERING, BENGALURU | - | 1 | 1 |
| 24. | THE OXFORD COLLEGE OF ENGINEERING, BENGALURU | - | 1 | 1 |
| 25. | VIDYA VIKAS INSTITUTE OF ENGINEERING AND TECHNOLOGY, MYSURU | - | 1 | 1 |
| 26. | YENEPOYA INSTITUTE OF TECHNOLOGY, MOODBIDRI, MANGALURU | - | 1 | 1 |
| | Grand Total | 8 | 22 | 30 |

KSCST: 47th Series Student Project Programme (SPP): 2023-24

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

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47th series of Student Project Programme (SPP): 2023-24

State Level Seminar and Exhibition to be held at Sharnbasva University, Kalaburagi on 9-10 August 2024

Branch-Wise List of ART-Park, IISc supported projects selected for Poster presentation and Exhibition projects

| | BRANCH OF ENGINEERING / SCIENCE | PROJECTS SPONSORED BY ART PARK, IISc | ART-PARK Sponsored Project selected for Poster Presentation | ART-PARK Sponsored Project selected for Exhibit project |
|-----|--|--|---|---|
| 1. | ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING | 5 | - | - |
| 2. | BIG DATA ANALYTICS | 1 | - | - |
| 3. | BIOTECHNOLOGY | 1 | 1 | - |
| 4. | COMPUTER APPLICATIONS | 4 | 1 | - |
| 5. | COMPUTER NETWORKING | 1 | - | - |
| 6. | COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE ENGINEERING | 1 | - | 1 |
| 7. | COMPUTER SCIENCE AND ENGINEERING | 44 | 3 | 12 |
| 8. | DATA SCIENCE | 1 | 1 | ı |
| 9. | ELECTRICAL AND ELECTRONICS ENGINEERING | 3 | ı | ı |
| 10. | ELECTRONICS AND COMMUNICATION ENGINEERING | 30 | 1 | 4 |
| 11. | ELECTRONICS AND COMPUTER ENGINEERING | 1 | - | - |
| 12. | ELECTRONICS AND INSTRUMENTATION ENGINEERING | 5 | - | - |
| 13. | ELECTRONICS AND TELECOMMUNICATION ENGINEERING | 1 | - | - |
| 14. | INFORMATION SCIENCE AND ENGINEERING | 18 | 1 | 2 |
| 15. | MECHANICAL ENGINEERING | 5 | - | 2 |
| 16. | MEDICAL ELECTRONICS | 1 | - | - |
| 17. | ROBOTICS AND AUTOMATION | 1 | - | 1 |
| 18. | VLSI DESIGN AND EMBEDDED SYSTEMS | 1 | - | - |
| _ | Grand Total | 124 | 8 | 22 |







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Indian Institute of Science Campus, Bengaluru -560012. Tel: 080 -23600978, 23341652

Email: spp@kscst.org.in | Website: www.kscst.org.in/spp.html or https://kscst.karnataka.gov.in

STUDENT PROJECT PROGRAMME

(SPP - 47th SERIES: 2023 - 2024)

KSCST invites project proposals from the final year BE, B. Arch., M.Tech., M.Sc., M.Tech., / M.Sc. (Agriculture), MBA & MCA students for sponsorship, under the 47th series of Student Project Programme (SPP).

The project proposals has to be submitted through Google Form from 1st December 2023 to 20th February 2024



The submitted projects shall mandatorily be from one of the broad indicative themes / areas as below:

- Structural Engineering, Geotechnical Engineering, Geomatics, Construction Technology and Management
- Water and Environment Engineering, Transportation Engineering, Industrial and System Engineering
- Energy Engineering, Energy for Sustainable Development, Waste Management
- Data Science, Cyber Security, Computing, Pattern Recognition and Image Processing, Signal Processing
- Big Data, integrating Internet of Things, Artificial Intelligence and Data Engineering (agriculture, health, education, digital literacy)
- Networking and Communication Engineering, Embedded Systems, VLSI Design, Robotics
- Power System Engineering, Electric Vehicles, Smart Grid Technologies and Micro-grids
- Materials and Design Engineering, Thermal and Fluid Engineering, Manufacturing Processes and Analysis
- Control and Automation, Biomedical Engineering, Sensors and Measurement Techniques
- Rural Engineering and Technical support, Smart cities and infrastructure development
- Biological / Medical Science, Physical Science, Chemical Science, Agriculture Science, Biotechnology
- Healthcare management, Information Technology, Resources and Environmental Management.



Final year students of B.E., B. Arch, M.Tech, M.Sc., M.Tech / M.Sc. (Agriculture), MBA and MCA

How to apply -

- The Project Proposals shall be prepared as per the SPP proposal formatavailable in KSCST website.
- Each institution can submit maximum of only 20 proposals from each branch.
- The concerned faculty shall initially scrutinize the project proposals, conduct in-house evaluation of projects and then submit the best project proposals for support.
- The team members are advised to carry out literature review and prior-art-search before submitting the project proposal to check the novelty of the project.
- The project team shall have a maximum of 4 students and each project team shall submit only one proposal as per the themes indicated above.
 Any other project proposals will not be considered and are liable for rejection.
- The team leader of the project needs to mandatorily fill the Google Form (Link: https://forms.gle/mE8Q4pM2nwZQuHbi9
- Please go through the "instructions for submission of project proposal" published in the website.
- The processing fee of Rs. 1,000/- (Rupees One Thousand only, inclusive of GST) to be paid through NEFT transfer/ UPI Payment only (Bank details of KSCST is in the project proposal format, available in Website).

- The processing fees paid for the project proposal is non-refundable / non-transferable.
- The proposal accepted only through Google form with the following attachments. (Students / institutions shall not send the hardcopy of the project proposals to KSCST)
 - a. Pdf of project proposal with attestation from Project guide / head of the department and institution
 - b. Scanned copy of Declaration and Endorsement from Head of the Institution
 - c. Copy of Processing fee details
- The Details of SPP Co-ordinator is mandatory for the submission of the proposal.
- The last date for submission of project proposal will not be extended and is as per the schedule.

Evaluation Process:



- The submitted projects will be evaluated by experts and then short-listed for sponsorship. The sponsored amount for the project will be sent to the principal of respective institutions by NEFT.
- The sponsored projects will be evaluated by an expert committee, either offline / online and then shortlisted for final state-level seminar and exhibition.
- The shortlisted projects after midterm evaluation will be called for State level seminar / exhibition followed by evaluation for the coveted "Best Project of the Year Award".



DATES TO REMEMBER

Last date for Submission of Proposals via Google Form
Announcement of Selected Projects for Sponsorship
Midterm Evaluation of Sponsored Projects (Online Mode)
Synopsis & Final Project Report submission through Google Form

20th February 2024, 5.30 PM

March / April 2024 May – June 2024

May - June 2024

July / August 2024

THIS PROGRAMME IS SUPPORTED BY: Department of Science and Technology, Government of India and Department of Science and Technology, Government of Karnataka

Seminar and Exhibition of Selected Projects

Representation of statistics of 47th series Student Project Programme

