



File No.

# KAKATIYA UNIVERSITY

WARANGAL

Branch: UGC - Unit

Page No. ( )

| Para No. | Subject: Kakatiya University, Warangal UGC Unit - <i>Rashtriya Uchchatar Shiksha Abhiyan (RUSA) 2.0</i> - support for the Major Research Project in Science to University teachers – Certain modifications to the approved note Dt.17-11-2022- Reg.  | Ref. No. |
|----------|--|----------|
|          | <p><b>RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA)<br/>COMPONENT-10-RESEARCH INNOVATION AND QUALITY IMPROVEMENT<br/>Kakatiya University, Warangal-506 009, Telangana State-India</b></p> <p>Ref: 1) Proceedings of the Commissioner of Collegiate Education &amp; State project Director, (RUSA)<br/>File No.RUSA-RC10/1/2020-O/o PO-RUSA<br/>2) Minutes of the 12<sup>th</sup> PAB meeting of MHRD Dt.25-05-2018<br/>3) F.No.24-25/2014-U.Policy (TLMullti-Gen, SC, ST) of MHRD, Gol., Dt.15-07-2019<br/>4) Lr.No.103/UGC/KU/2020 Dt.27-07-2020 of the Registrar, Kakatiya University, Warangal<br/>5) Lr.No.EE/TSEWIDC/WGL/K-Hub/2020-21 Dt.24-07-2020 of the Executive Engineer, TSEWIDC, Warangal.<br/>6) Note approved on 17-11-2022.</p> |          |
| 1        | <p>The RUSA was established with the key objectives to improve access, equity and quality in higher education through planned development of higher education at the state level. Objectives include creating new academic institutions, expanding and upgrading the existing ones, developing institutions that are self-reliant in terms of quality education, professionally managed, and characterized by greater inclination towards research and provide students with education that is relevant to them as well the nation as a whole.</p>   |          |
| 2        | <p>The Project Approval Board (PAB) in its 12<sup>th</sup> meeting held under the Chairmanship of Sh.R.Subrahmanyam, Secretary (HE) MHRD, at India International Centre on 25<sup>th</sup> may 2018 has resolved under <b>Component 10 – Research, Innovation and Quality improvement, (16) Universities (list at Annexure-7) have identified to receive an amount of Rs.50 crores each under the Research and Innovation component. Total of Rs.800 crores have been approved.</b></p>  |          |
| 3        | <p>Adverting to the subject cited and in view of the approval of PAB vide reference 2<sup>nd</sup> cited, the Commissioner of Collegiate Education &amp; State Project Director (RUSA) in his proceedings cited at reference 1<sup>st</sup> cited, has stated that the Kakatiya university was approved with a total grant of Rs.50.00 crore in the sharing pattern of 60:40 central share and State share respectively under RUSA 2.0.</p>  |          |



File No.

**KAKATIYA UNIVERSITY**

WARANGAL

Page No. ( )

Branch: UGC - Unit

4 Earlier the faculty in Kakatiya University have submitted the detailed research project proposals individually and also on behalf of centres under RUSA – Component 10 – Research, Innovation and quality improvement. All the proposals were evaluated by the external experts and the recommended proposals are approved by the Hon'ble Vice Chancellor of Kakatiya University (Ref.6).

5 The note approved on 17-11-2022 (Ref.6) under the research project proposals to centres at S.No. 6 and 10 is hereby modified as below:

**RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA)  
COMPONENT-10-RESEARCH INNOVATION AND QUALITY IMPROVEMENT  
Kakatiya University, Warangal-506 009, Telangana State-India**

Research Proposals approved for individual faculty members:

| <i>Sl. No.</i> | <i>Department</i> | <i>Title of Research &amp; Innovation Projects</i>   | <i>Amount (Rs.In Lakhs)</i> |
|----------------|-------------------|--|-----------------------------|
| 01             | Zoology           | Soil arthropods (micro and macro fauna) earthworms and estimation of physico-chemical parameters in the soil in organic and conventional agro-ecosystems in Telangana (Dr. E.Narayana) | 20.164                      |
| 02             |                   | Molecular and Biochemical Characterization of Parotoid Gland Secretion and its extract of Bufo melanostictus (Dr. Y. Venkaiah)   | 20.814                      |
| 03             |                   | Studies of DNA and RNA components of nuclear matrix in <i>Antheraea mylitta</i> (Dr.V.Shamitha)  | 21.565                      |
| 04             |                   | Validating ethno-medicines from tribal areas of Telangana with a view to isolation and developing new drug molecule for targeting HIV (Dr.M.Estari)                                    | 19.764                      |
|                |                   | <b>Sub Total</b>   | <b>82.307</b>               |
| 05             | Sericulture       | Isolation of bioactive compounds from <i>Annona muricata</i> its effect on rearing performance & antibacterial activity in mulberry silkworm, <i>B.Mari.L.</i> (Dr.K.Sujatha)          | 32.684                      |
| 06             | Microbiology      | Purification and characterization of bioactive molecules from microbes for synthesis of industrially important products. (Dr.M.Srinivas) And (Dr.M.Srinivas and others)                | 62.128                      |



# KAKATIYA UNIVERSITY

File No.

WARANGAL

Page No. ( )

Branch: UGC - Unit

|    |                  |   |                |
|----|------------------|---|----------------|
| 07 | Biotechnology    | Application of plant transformation methods and genome editing tools for crop improvement and enhancement of secondary metabolites of higher plants. (Dr.A.Venkateshwar Rao)                                      | 35.16          |
| 08 | Computer Science | Casual data mining approach to study the Inter-relationship between Cardio Vascular Diseases and Renal System Failure (Dr.B. Rama)  | 14.9152        |
| 09 |                  | Security management system (SMS) for health care data in cloud platform (Dr.B.Manjula)  | 17.2844        |
|    |                  | <b>Sub Total</b>  | <b>32.1996</b> |
| 10 | Pharmacy         | 1. Development of nanocarrier drug delivery systems for brain targeting via intranasal route for the treatment of neurodegenerative disorders (Dr.J. Krishnaveni)   | 12.4389        |
| 11 |                  | Development of New indole derivatives as antidepressants (Prof. M. Sarangapani)   | 25.00          |
| 12 |                  | Design, synthesis and screening of new heterocyclic compounds for neurodegenerative disorders (Dr.G.Sammaih)  | 14.60          |
| 13 |                  | Overcoming P-Glycoprotein-Mediated multi drug resistance in rats with Colorectal Cancer: Potential Reversal Compounds from secretions of common Indian toad (Dr.N. Prasad, Dr.Y.Narasimha reddy, Dr.Swarupa Rani) | 47.6404        |
|    |                  | <b>Sub Total</b>  | <b>99.6793</b> |
| 14 | Botany           | Wild Medicinal Cucurbits – Therapeutic compounds and Conservation (Dr.M.Surekha)  | 35.346         |
| 15 | Physics          | DFT computations for molecular structure and characteristics of some biomolecules (Prof.B.Venkatram Reddy)  | 33.6956        |
| 16 | Geology          | The miaskitic alkaline magmatic activity across the Cuddapah intrusive province: A comprehensive petrological and geochemical study. (Prof.R.Mallikarjuna Reddy)  | 23.314         |
| 17 | Mathematics      | Study of Micro and Poroelastic Solids by using Complex Analysis and Numerical Techniques. (Prof.P.Malla Reddy)  | 13.7242        |
| 18 |                  | Markov models in reliability: performance study (Dr.T.Sumathi Umamaheshwari)  | 10.8727        |
|    |                  | <b>Sub Total</b>  | <b>24.596</b>  |



# KAKATIYA UNIVERSITY

WARANGAL

Page No. ( )

File No.

Branch: UGC - Unit

|    |                                |   |                 |
|----|--------------------------------|---|-----------------|
| 19 | Chemistry                      | Design, Synthesis and in silico/in vitro studies of tryptanthrin derivatives as potent anticancer agents and IDO1 inhibitors (Dr. Mamatha)  | 19.3156         |
| 20 |                                | Thermodynamic investigations of Cholinergic Drugs (Acetylcholine, Bethanechol and Carbachol) at various Temperatures (Dr.Savitha Jyosthna)  | 10.8152         |
| 21 |                                | Improving the Medicinal Properties of 1,2,4 triazole and Bis-isatin Drugs via Metal Complexation: Investigations based on Rational Design, Synthesis and Structure-Activity Studies (Dr.S.Jyothi) | 11.8304         |
| 22 |                                | Synthesis and Biological Evaluation of New N-Heterocyclic compounds derived from Dichlone (Dr.G.Brahmeshwari)   | 25.562          |
| 23 |                                | Design and green synthesis of novel coumarin derivatives and their studies on anticancer and antitumor activities (Dr.G.Hanumanthu)   | 16.2552         |
| 24 |                                | Development of Riboflavin Binding Protein Anticancer Drug Conjugates (Dr.J.Madhukar)  | 29.3152         |
|    |                                | <b>Sub Total</b>  | <b>113.0936</b> |
| 25 | English                        | English for Social Empowerment: Towards an Add-on Course to Low Achieving learners  | 23.1108         |
| 26 | Telugu                         | Telangana Jatharalu – Sahithya Samskruthika Adhyayanam  | 19.2689         |
| 27 | Economics                      | Livelihood and Entrepreneurial Development through Minor Irrigation in Telangana State – With special reference to Mission Kakatiya (Dr.B.Suresh Lal)   | 22.5608         |
| 28 | Public Administration          | Corporate social responsibilities in IT Industry- Issues and Challenges (Dr.P.Srinivas Rao)   | 20.2608         |
| 29 | Law                            | Climate Change and Disaster Management: Law & Policy in India (Dr.M.Srinivas)   | 19.2608         |
| 30 | History & Tourism Management   | Village culture in Telangana: A study of Communities, Crafts, Fairs and Festivals.  | 19.7608         |
| 31 | Social Work                    | Welfare and Development schemes for marginalized communities in Telangana State (Prof.T.Ramesh)   | 19.7608         |
| 32 | Sociology                      | Sexual Violence on women and Socio Economic determinants of rape offenders: A sociological study (Dr.M.Swarnalatha)   | 19.7608         |
| 33 | Commerce & Business Management | Investors Protection in India-The role of Corporate and Academia in educating small Investors   | 31.276          |



# KAKATIYA UNIVERSITY

File No.

WARANGAL

Page No. ( )

Branch: UGC - Unit

|                             |                          |   |                 |
|-----------------------------|--------------------------|---|-----------------|
| 34                          | Engineering & Technology | Identifying Regional Dialects by Using Text independent Speech Processing Models (M.Sadanandam)   | 9.3202          |
| 35                          |                          | An Intelligent Doctor assistant for effective diagnosis using Machine learning (N.Ramana)   | 8.7152          |
| 36                          |                          | Design and Analysis of FinFET based combinational circuits for low power applications (Mr. Bikshalu)  | 19.8152         |
| 37                          |                          | 3D Face image Acquisition and processing to ameliorate face recognition (K. Punnamchander)  | 14.3402         |
| 38                          |                          | Brain Tumor detection, classification from Magnetic Resonance Images using Innovative Machine learning algorithms and diversified applications to Biological Covid Virus. (Prof. T.Srinivasulu) | 16.3682         |
| <b>Sub Total</b>            |                          |   | <b>85.8742</b>  |
| <b>Total (Rs. In Lakhs)</b> |                          |   | <b>850.3665</b> |

## Research Project Proposals approved to centres:

| Sl No:                                       | Name of the Program                                      | Participants (Centre/Dept./ Unit) | Budget (Rs. in Lakhs) |               |          |
|--|--|-----------------------------------|-----------------------|---------------|----------|
|  |  |                                   | Recurring             | Non-Recurring | Total    |
| <b>B Research and Innovation (R &amp; I)</b> |  |                                   |                       |               |          |
| 1  | RUSA-KU-Central Instrumentation Centre (R-CIC)           | 1.CIC                             | 40                    | 645           | 685      |
| 2  | RUSA-KU--Centre for Drug Research (R-CDR)                | 1. Pharmacy                       | 152.5216              | 242.92        | 395.4416 |
|  |  | 2. Microbiology                   |                       |               |          |
| 3  | RUSA-KU--Centre for Molecules & Material Physics (R-MMP) | A) Physics                        | 28.446                |               | 28.446   |



# KAKATIYA UNIVERSITY

WARANGAL

Branch: UGC - Unit

File No.

Page No. ( )

|       |   |  |           |           |           |
|-------|---|--|-----------|-----------|-----------|
| 4     | RUSA-KU-Centre for Nano Drug Delivery Systems (R-NDDS)    | B) Pharmacy                                    | 56.268    | 109.5     | 165.768   |
| 5     | RUSA-KU-Centre for Ethnomedicinal Plants (R-CEMP)         | 1. Zoology                                     | 144.04    | 172.74    | 316.78    |
|       |   | 2. Biotechnology                               |           |           |           |
|       |   | 3. Pharmacy                                    |           |           |           |
| 6     | RUSA-KU Industry Academia Partnership (R-KUIAP)           | Departments with Industry academia partnership | 37        | 50        | 87        |
| 7     | RUSA-KU- Library (R-KUL)                                  | 1. University Central Library                  | 100       |           | 100       |
| 8     | RUSA-KU Upgradation of Laboratories Facilities KU (R-ULF) | 1. University Colleges                         | 187.426   | 199       | 386.426   |
|       |   | 1. Departments                                 |           |           |           |
| 9     | RUSA-KU-Fellowships (R-KUF)                               | 1. UGC Unit                                    | 323.64    |           | 323.64    |
| 10    | RUSA-KU Conference & Book Grant (R-C&BG)                  | All the Departments.                           | 86.4      |           | 86.4      |
| 11    | RUSA-KU Research Programs (R-RP)                          | 1. University Colleges                         | 726.534   | 198.8062  | 925.3402  |
|       |   | 2. Departments                                 |           |           |           |
| Total |   |  | 1882.2756 | 1617.9662 | 3500.2418 |

**With the above information, the file is submitted for approval of the modifications to the approved note (Ref.6) of the sanction of Research projects for individual faculty and for the centres under RUSA - Component 10 - Research, Innovation and quality improvement.**

  
Jr Asst

  
Asst Registrar

  
CO-UGC

  
Registrar

  
Vice-Chancellor