

**3.1.2:** The institution provides seed money to its teachers for research.

ADDITIONAL INFO.
<ul> <li>Sanction letters of seed money to the teachers</li> </ul>



Email: info@kbncollege.ac.in

### KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

(Sponsored by: S.K.P.V.V. Hindu High Schools' Committee) Kothapeta, VIJAYAWADA - 520 001.

A College with Potential for Excellence (CPE) All India 92nd Rank in NIRF by MHRD (2017)

ISO 9001-2015 CERTIFIED INSTITUTION

Accredited by NAAC with "A" Grade in Cycle 3

### Proceedings of the Managing Committee

January, 2023.

Department: CHEMISTRY

Sub: Financial Assistance to Minor Research Projects - Approval cum Sanction Order - Release of First Installment - Reg.

Sir / Madam,

This has reference to the Minor Research Project proposal submitted by Dr. T. Bhagya Kumar (PI) and Smt. O. Sailaja (Co-I), Department of Chemistry entitled 'Double Drug Assay Validation and Characterization of Degradents in Combined Dosage Form by HPLC & LCMS' for financial assistance and to inform you that the proposal has approved and a grant of Rs.8,74,500 to the principal investigator (PI) for under taking the above mentioned Minor Research Project as per the items of expenditure listed below:

Item	Amount sanctioned
Instruments hiring service	Rs.30,000
HPLC Instrument	Rs.7,00,000
UPS & Batteries	Rs.53,500
Sonicator	Rs.17,000
Chemicals & Glassware	Rs.26,000
Working Standards (4)	Rs.24,000
Marketed formulations	Rs.24,000
Total	Rs.8,74,500

- 1. An amount of Rs.8,74,500/- is released for carrying out the project.
- 2. You are directed to incur the expenditure on the items specified as per the above limits and submit the expenditure statement and utilization certificate accordingly.
- 3. The books and equipment (except consumables) purchased for the project shall be properties of the college and the PI is required to hand over the same to be concerned after completion of the project. For purchase of Non-consumables Pl is required to obtain Ouotations / Bills and submitted the same through the Principal. The same will be paid directly by the management to the supplier.

- 4. The project is to be completed within a period of 18 months and submit the report on the project.
- The PI is required to submit progress report for every quarter, based on the same, the second installment will be released.
- If the Principal Investigator fails to submit the Project, the PI has to return the sanctioned amount with 15% of interest.

Secretary & Correspondent

Secretary & Correspondent KAKARAPARTI BHAVANARAYANA COLLECT VIJAYAWADA-1.

### Copy to

- The Principal,
   K.B.N. College.
- The Director,
   Research Development Cell,
   K.B.N. College.

### KBN COLLEGE:: VIJAYAWADA

### APPLICATION FOR FINANCIAL SUPPORT TO MINOR RESEARCH PROJECT FUNDED BY MANAGEMENT

 Title of the Project : 'Double Drug Assay Validation and Characterization of Degradents in Combined Dosage Form by HPLC & LCMS'

 Name of the Principal Investigator: Dr. T. Bhagya Kumar Name of the Co-PI: Smt. O. Sailaja

#### 3. Permanent Address:

PI: KBN College, Vijayawada

Co-PI: KBN College, Vijayawada

### 4. Project Summary:

It is of great importance to understand the stability of a drug molecule, i.e. to know how the quality of a drug varies with time under the influence of a variety of environmental factors. The International Conference on Harmonisation (ICH) guidelines on stability testing of new drug substances and products Q1A(R2) and Q1B (ICH, 2003; ICH, 1996) suggest stress studies on a drug to establish its stability characteristics. It is best of our knowledge that Liquid chromatography (LC) is an analytical technique widely used in the pharmaceutical industry for investigation of drug degradation and analysis of the degradation products. Anisomycin has been identified and analyzed using liquid chromatography, as well as ultraviolet (UV), infrared and nuclear magnetic resonance spectroscopy, and mass spectrometry. In our previous papers, liquid chromatography coupled to tandem mass spectrometry (LC-MS/MS) was used as a comparative method for investigation of drug degradation in standard solution. In the later, the method was validated according to FDA guidelines for bioanalytical method validation. Therefore, the aim of this work was to investigate degradation behavior of double drug in order to understand the stability of the drug molecule and to identify the degradation products. This was accomplished by exposing the drug to ICH recommended stress conditions of hydrolysis, oxidation, thermal stress and photolysis, and by analyzing the samples using optimized and validated stability-indicating LC-MS/MS method.

- Objectives: The current study focused on the development, validation, and characterization of forced degradation products using LC-MS/MS.
- Keywords: LC-MS/MS, Method development, Validation, Degradation pathways
- Expected Outcome: The method can apply in identification and quantification
  of degradation compounds of double drug in quality control and formulations.
- 8. Names and addresses of two experts in the area of the project:
  - a. Prof. R. Venkatnadh, GITAM University, Bangalore
  - b. Dr. B. Hari Babu, Asso. Prof., ANU, Guntur
- 9. Experience of the Principal Investigator in the area of the Project:

PI: 09 Years

Co-PI: 12 Years

10. Budget proposals

Instruments hiring service	Rs.30,000
HPLC Instrument	Rs.7,00,000
UPS & Batteries	Rs.53,500
Sonicator	Rs.17,000
Chemicals & Glassware	Rs.26,000
Working Standards (4)	Rs.24,000
Marketed formulations	Rs.24,000
Total	Rs.8,74,500

#### 11. Plan of Work:

- · Literature review and selection of drug
- · Collection of Marketed formulation and working standards
- Drug Assay Validation
- Characterization of Degradents

12. Bio data of the Principal Investigator: Enclosed

Signature of the Co-Investigator

Signature of the Principal Investigator

Signature of the Head of the Institution

PRINCIPAL
Kakaraparthi Bhavannarayana College
VIJAYAWADA-1.

### UNDERTAKING LETTER

Dr. T. Bhagya Kumar (Name PI / CO-PI), Chemistry (Department), I have been working in KBN College since 1999 (year). I am grateful to the management for giving me the financial support to do the Minor Research Project titled 'Double Drug Assay Validation and Characterization of Degradents in Combined Dosage Form by HPLC & LCMS sanctioned in the month of January, 2023. I will complete my Research Project on or before 18 Months as per the guidelines given by Research Promotion & Monitoring Cell and I intend to continue my job until the completion of my Research Project.

Signature



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### Proceedings of the Managing Committee

Date: January, 2023

Department: ENGLISH

Sub: Financial Assistance to Minor Research Projects -Approval cum Sanction Order - Release of First Installment - Reg.

Sir / Madam,

This has reference to the Minor Research Project proposal submitted by B. Mohan Teja, Department of English entitled 'The Reasons and Methods for Teaching Pronunciation without Imitation' for financial assistance and to inform you that the proposal has approved and a grant of Rs.2,84,000 to the principal investigator (PI) for under taking the above mentioned Minor Research Project as per the items of expenditure listed below:

Item	Amount allocated	Amount sanctioned
Books & Journals	Rs.14,000	Rs.14,000
Field Work	Rs.10,000	Rs.10,000
Travelling allowance	Rs.5,000	Rs.5,000
Contingences	Rs.5,000	Rs.5,000
Software	Rs.2,50,000	Rs.2,50,000
Total	Rs.2,84,000	Rs.2,84,000

- 1. An amount of Rs.2,84,000/- is presently released for carrying out the project.
- You are directed to incur the expenditure on the items specified as per the above limits and submit the expenditure statement and utilization certificate accordingly.
- 3. The books and equipment (except consumables) purchased for the project shall be properties of the college and the PI is required to hand over the same to be concerned after completion of the project. For purchase of Non-consumables PI is required to obtain Quotations / Bills and submitted the same through the Principal. The same will be paid directly by the management to the supplier.

- 4. The project is to be completed within a period of 18 months and submit the report on the project.
- The PI is required to submit progress report for every quarter, based on the same, the second installment will be released.
- If the Principal Investigator fails to submit the Project, the PI has to return the sanctioned amount with 15% of interest.

Secretary & Correspondent
Secretary & Correspondent
KAKARAPARTI BHAVANARAYANA COLLEGE

### Copy to

- The Principal,
   K.B.N. College.
- The Director,
   Research Development Cell,
   K.B.N. College.

### KBN COLLEGE:: VIJAYAWADA

## APPLICATION FOR FINANCIAL SUPPORT TO MINOR RESEARCH PROJECT FUNDED BY MANAGEMENT

- 1. Title of the Project : 'The Reasons and Methods for Teaching Pronunciation without Imitation'
- 2. Name of the Principal Investigator: B. Mohan Teja
- 3. Permanent Address:

PI: KBN College, Vijavawada

4. <u>Introduction</u>: The ability to communicate clearly and effectively in a second language is a crucial skill in our globalized world. While pronunciation plays a significant role in language proficiency, traditional language teaching methods often rely heavily on imitation, which may not always lead to accurate or natural pronunciation. This project proposal aims to explore the reasons behind teaching pronunciation without strict imitation and to develop innovative methods for enhancing pronunciation skills in second language learners.

### Objectives:

- Investigate the limitations and challenges of pronunciation teaching through imitation.
- Develop alternative methods for teaching pronunciation that focus on understanding phonetic principles and natural speech patterns.
- Evaluate the effectiveness of the proposed methods in improving learners' pronunciation accuracy and fluency.

### Methodology:

- a. Literature Review: Conduct an in-depth review of existing literature on pronunciation teaching, imitation-based methods, and alternative approaches.
- b. Identifying Challenges: Identify and analyze the limitations and drawbacks
  of pronunciation teaching through imitation, such as overemphasis on isolated
  sounds and lack of contextual understanding.
- c. Phonetics and Natural Patterns: Design instructional strategies that emphasize phonetic principles, intonation, stress patterns, and rhythm to help learners develop a natural pronunciation.

- d. Interactive Learning: Develop interactive and technology-driven learning tools, such as interactive pronunciation apps, audiovisual aids, and speech recognition software.
- e. Case Studies: Implement the proposed methods in language classrooms and conduct case studies to evaluate their effectiveness compared to traditional imitation-based methods.
- f. Data Collection and Analysis: Gather qualitative and quantitative data on learners' progress, satisfaction, and confidence in their pronunciation skills.
- g. Comparative Analysis: Compare the results of the alternative methods with those of traditional imitation-based approaches to highlight the benefits and drawbacks of each.

### **Expected Outcomes:**

- a. A comprehensive analysis of the limitations of pronunciation teaching through imitation.
- Innovative methods for teaching pronunciation that emphasize phonetic understanding and natural speech patterns.
- c. Case study findings and data-driven insights on the effectiveness of the proposed methods.
- d. Practical recommendations and guidelines for educators and language learners on implementing effective pronunciation teaching techniques.

### Timeline:

- Literature Review and Problem Identification: 2 months
- Methodology Design and Development: 3 months
- Implementation and Case Studies: 6 months
- Data Collection and Analysis: 2 months
- Comparative Analysis and Recommendations: 2 months

#### Conclusion:

This project proposal seeks to address the limitations of traditional imitationbased pronunciation teaching methods by exploring alternative approaches that emphasize phonetic understanding and natural speech patterns. The outcomes of this research have the potential to revolutionize language education, leading to improved pronunciation skills, enhanced communication, and increased language proficiency among second language learners.

### 5. Experience of the Principal Investigator in the area of the Project:

PI: 12 Years

6. Budget proposals

Books & Journals Rs.14,000
Field Work Rs.10,000
Travelling allowance Rs.5,000
Contingences Rs.5,000
Software Rs.2,50,000
Total Rs.2,84,000

7. Bio data of the Principal Investigator: Enclosed

Signature of the Principal Investigator

Signature of the Head of the Institution

PRINCIPAL
Kakaraparthi Bhavannarayana College
VIJAMAWADA-1.

### UNDERTAKING LETTER

B. Mohan Teja (Name PI / CO-PI), English (Department), I have been working in KBN College since 2018. I am grateful to the management for giving me the financial support to do the Minor Research Project titled 'The Reasons and Methods for Teaching Pronunciation without Imitation' sanctioned in the month of January, 2023. I will complete my Research Project on or before 18 Months as per the guidelines given by Research Promotion & Monitoring Cell and I intend to continue my job until the completion of my Research Project.

Signature



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### Proceedings of the Managing Committee

February, 2022.

Department: MCA

Sub: Financial Assistance to Minor Research Projects – Approval cum Sanction Order – Reg. Sir / Madam,

This has reference to the Minor Research Project proposal submitted by Smt. Shamim, Department of MCA entitled 'Leaf Disease Detection using Deep Learning' for financial assistance and to inform you that the proposal has approved and a grant of Rs.2,33,000 to the principal investigator (PI) for under taking the above mentioned Minor Research Project as per the items of expenditure listed below:

Item	Amount allocated	Amount sanctioned as 1 <sup>st</sup> Installment
Books & Journals	Rs.25,000	
Hiring Services for Cameras	Rs.30,000	Rs.74,000
Field Work	Rs.15,000	₹
High end Laptop	Rs.1,00,000	Rs.1,00,000
Contingences & Stationary	Rs.15,000	J. 8
Hiring Charges for Research Assistants & Field Workers	Rs.24,000	Rs.12,000
Travelling Allowance	Rs.24,000	
Grand Total	Rs.2,33,000	Rs.1,86,000

- An amount of Rs.1,86,000/- is released as 1<sup>st</sup> Installment for carrying out the project.
- You are directed to incur the expenditure on the items specified as per the above limits and submit the expenditure statement and utilization certificate accordingly.
- 3. The books and equipment (except consumables) purchased for the project shall be properties of the college and the PI is required to hand over the same to be concerned after completion of the project. For purchase of Non-consumables PI is required to obtain Quotations / Bills and submitted the same through the Principal. The same will be paid directly by the management to the supplier.

- 4. The project is to be completed within a period of 18 months and submit the report on the project.
- The PI is required to submit progress report for every quarter, based on the same, the second installment will be released.
- If the Principal Investigator fails to submit the Project, the PI has to return the sanctioned amount with 15% of interest.

Secretary & Correspondent

KAKARAPARTI BHAVANARAYANA COLLEGE
VIJAYAWADA-1.

Copy to

The Principal,
 K.B.N. College.

The Director,
 Research Promotion & Monitoring Cell,
 K.B.N. College.

### KBN COLLEGE:: VIJAYAWADA PROJECT PROPOSAL

1. Title of the Project

: Leaf Disease Detection using Deep Learning

2. Name of the Principal Investigator: Shamim

3. Permanent Address:

PI: KBN College, Vijayawada

4. Introduction:

The rapid growth of the agricultural industry has led to an increased demand for effective crop management practices. One crucial aspect of successful crop management is the early detection and diagnosis of leaf diseases, which can significantly impact crop yield and quality. Traditional manual methods of disease detection are time-consuming and often inaccurate. In this project proposal, we outline a plan to develop a robust and accurate leaf disease detection system using deep learning techniques.

Objectives:

- Develop a deep learning model capable of accurately identifying and classifying common leaf diseases.
- Create a user-friendly interface for farmers and agricultural experts to interact with the system and interpret results.
- Enable real-time disease detection and diagnosis for timely intervention and mitigation.

Methodology:

- Data Collection: Gather a diverse dataset of high-quality images depicting healthy leaves and various stages of diseased leaves for multiple crops.
- Data Preprocessing: Clean, augment, and preprocess the dataset to enhance model performance and generalization.
- Model Selection: Choose a suitable deep learning architecture (e.g., Convolutional Neural Network) and fine-tune pre-trained models to classify leaf diseases accurately.
- Model Training: Train the selected model using the preprocessed dataset, implementing techniques like transfer learning to improve convergence and efficiency.
- Validation and Testing: Evaluate the model's performance using appropriate metrics and techniques, including cross-validation and confusion matrix analysis.
- User Interface Development: Create an intuitive web or mobile application interface that allows users to upload leaf images and receive real-time disease detection results.
- Real-time Inference: Implement a mechanism for the trained model to make predictions on new, unseen leaf images in real-time.

Expected Outcomes:

- A trained deep learning model capable of accurately identifying and classifying leaf diseases.
- A user-friendly interface that enables farmers and agricultural experts to easily access and interpret disease detection results.
- Improved crop management through timely disease detection and intervention, leading to increased yield and reduced losses.

Timeline:

- Data Collection and Pre-processing: 2 months
- Model Development and Training: 3 months
- User Interface Development: 2 months
- Testing and Validation: 2 months
- Integration and Deployment: 1 month

Conclusion:

The proposed project aims to address the critical need for accurate and timely leaf disease detection in agriculture using deep learning technology. By developing a robust model and an intuitive user interface, this project has the potential to revolutionize crop management practices and contribute to improved food security and sustainable farming practices.

### 5. Experience of the Principal Investigator in the area of the Project:

PI: 18 Years

### 6. Names and addresses of two experts in the area of the project:

- Dr. R. Kiran Kumar, Asst. Prof., Dept. of CSE, Krishna University
- Dr. A. Pathanjali Sastry, Asst. Prof., PSCMR College of Engineering, Vijayawada

### 7. Budget proposals

Books & Journals	Rs.25,000
Hiring Services for Cameras	Rs.30,000
Field Work	Rs.15,000
High end Laptop	Rs.1,00,000
Contingences & Stationary	Rs.15,000
Hiring Charges for Research Assistants & Field Workers	Rs.24,000
Travelling Allowance	Rs.24,000
Grand Total	Rs.2,33,000

8. Bio data of the Principal Investigator: Enclosed

Signature of the Principal Investigator

Signature of the Head of the Institution

PRINCIPAL

Kakaraparthi Bhavannarayana College VIJAYAWADA-1.



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Accredited by NAAC with "A" Grade in Cycle 3

### Proceedings of the Managing Committee

February, 2022.

Department: CHEMISTRY

Sub: Financial Assistance to Minor Research Projects - Approval cum Sanction Order - Reg. Sir / Madam,

This has reference to the Minor Research Project proposal submitted by Dr. K. Kiran Kumar, Department of Chemistry entitled 'Phytochemical Analysis and Flame Photometric Studies of Hexane and Chloroform Leaf Extracts of Inula Recemosa' for financial assistance and to inform you that the proposal has approved and a grant of Rs.1,68,500 to the principal investigator (PI) for under taking the above mentioned Minor Research Project as per the items of expenditure listed below:

Item	Amount allocated	Amount sanctioned
Flamephotometry	Rs.80,000	Rs.80,000
pH Meter & Potentiometer	Rs.20,000	
Chemicals & Glassware	Rs.40,000	Rs.24,000
Field Work	Rs.15,000	Rs.3,000
Publication Charges	Rs.13,500	-
Total	Rs.1,68,500	Rs.1,07,000

- 1. An amount of Rs.1,07,000/- is released for carrying out the project.
- You are directed to incur the expenditure on the items specified as per the above limits and submit the expenditure statement and utilization certificate accordingly.
- 3. The books and equipment (except consumables) purchased for the project shall be properties of the college and the PI is required to hand over the same to be concerned after completion of the project. For purchase of Non-consumables PI is required to obtain Quotations / Bills and submitted the same through the Principal. The same will be paid directly by the management to the supplier.

- The project is to be completed within a period of 18 months and submit the report on the project.
- The PI is required to submit progress report for every quarter, based on the same, the second installment will be released.
- If the Principal Investigator fails to submit the Project, the PI has to return the sanctioned amount with 15% of interest.

Secretary & Correspondent
Secretary & Correspondent
AKARAPARTI BHAVANARAYANA COLLEGE
VIJAYAWADA-1.

Copy to

- The Principal,
   K.B.N. College.
- The Director,
   Research Promotion & Monitoring Cell,
   K.B.N. College.

#### KBN COLLEGE:: VIJAYAWADA

### APPLICATION FOR FINANCIAL SUPPORT TO MINOR RESEARCH PROJECT FUNDED BY MANAGEMENT

1. Title of the Project

: 'Phytochemical Analysis and Flame Photometric Studies of Hexane and Chloroform Leaf Extracts of Inula Recemosa'

2. Name of the Principal Investigator: Dr. K. Kiran Kumar

3. Permanent Address:

PI: KBN College, Vijayawada

Co-PI: KBN College, Vijayawada

4. Project Introduction: Inula recemosa, commonly known as "Pushkarmool," is a medicinal plant widely used in traditional medicine for its potential therapeutic properties. The plant is believed to possess various bioactive compounds that contribute to its medicinal value. This project proposal aims to conduct a comprehensive phytochemical analysis of hexane and chloroform leaf extracts of Inula recemosa, followed by flame photometric studies to identify and quantify specific chemical constituents.

### Objectives:

- Perform phytochemical screening of hexane and chloroform leaf extracts of Inula recemosa to identify the presence of various secondary metabolites.
- Conduct flame photometric studies to quantitatively determine specific elements or compounds present in the extracts.
- Contribute to the understanding of the chemical composition and potential medicinal properties of Inula recemosa.

### Methodology:

- a. Plant Material Collection: Gather fresh leaves of Inula recemosa from a natural habitat or cultivated source.
- Extraction: Prepare hexanc and chloroform leaf extracts using standard extraction methods, ensuring high-quality extraction.
- Phytochemical Screening: Perform qualitative tests to detect the presence of alkaloids, flavonoids, terpenoids, saponins, tannins, and other secondary metabolites.
- d. Flame Photometric Studies: Utilize flame photometry to quantitatively analyze the concentrations of specific elements or compounds, such as potassium, sodium, calcium, or other relevant constituents in the extracts.
- c. Data Analysis: Compile and analyze the results of both phytochemical screening and flame photometric studies to draw meaningful conclusions.

#### **Expected Outcomes:**

- a. Comprehensive report on the phytochemical constituents present in hexane and chloroform leaf extracts of Inula recemosa.
- b. Quantitative data on specific elements or compounds obtained through flame photometric studies.
- Insights into the potential medicinal properties and applications of Inula recemosa based on its chemical composition.

#### Timeline:

- Plant Material Collection and Preparation: I month
- Extraction and Phytochemical Screening: 3 months
- Flame Photometric Studies: 4 months
- Data Analysis and Report Compilation: 3 months

### Conclusion:

This project proposal seeks to contribute to the understanding of Inula recemosa's chemical composition by conducting a thorough phytochemical analysis of its hexane and chloroform leaf extracts. The flame photometric studies will provide quantitative data on specific elements or compounds present, enhancing our knowledge of the plant's potential medicinal properties. The outcomes of this research have the potential to support the development of herbal medicines and natural products derived from Inula recemosa for various health applications.

- 5. Names and addresses of two experts in the area of the project:
- a. Dr. B. Hari Babu, Asso. Prof., ANU, Guntur
- b. Dr. K. Suresh Babu, CSIR, Hyderabad
- 6. Experience of the Principal Investigator in the area of the Project:

PI: 15 Years

### 7. Budget proposals

Flamephotometry	Rs.80,000
pH Mcter & Potentiometer	Rs.20,000
Chemicals & Glassware	Rs.40,000
Field Work	Rs.15,000
Publication Charges	Rs.13,500
Total	Rs.1,68,500

8. Bio data of the Principal Investigator: Enclosed

Signature of the PI

Signature of the Principal

Kakaraparthi Bhavannarayana College VIJAYAWADA-1.



Email: info@kbncollege.ac.in



### KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

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Accredited by NAAC with "A" Grade in Cycle 3

### Proceedings of the Managing Committee

Date: 27th January, 2021

Department: Computer Science

Sub: Financial Assistance to Minor Research Projects - cum Approval - Sanction - Release of First Installment - Reg.

Sir / Madam,

This has reference to the Minor Research Project proposal submitted by Sri P. Ravindra, Department of Computer Science entitled 'Mango Fruit Detection & counting using CNN' for financial assistance and to inform you that the proposal has approved and a grant of Rs.1,54,000 to the principal investigator (PI) for under taking the above mentioned Minor Research Project as per the items of expenditure listed below:

Item	Amount allocated	Amount sanctioned as 1s Installment
Field Work	Rs.24,000	Rs.12,000
Purchase of datasets & Plagiarism check	Rs.15,000	Rs.15,000
Hiring Services for Camera	Rs.20,000	Rs.10,000
Travelling Allowance	Rs.10,000	
Research Assistance	Rs.5,000	•
Books & Journals	Rs.5,000	<b>37</b>
Software	Rs.60,000	Rs.60,000
Contingencies	Rs.15,000	4
Total	Rs.1,54,000	Rs.97,000

- An amount of Rs.97,000/- is presently released as the first installment for carrying out the project.
- You are directed to incur the expenditure on the items specified as per the above limits and submit the expenditure statement and utilization certificate accordingly.
- The books and equipment (except consumables) purchased for the project shall be properties of the college and the PI is required to hand over the same to be concerned after completion of the project.

- 4. The project is to be completed within a period of 18 months and submit the report on the project.
- The PI is required to submit progress report for every quarter, based on the same, the second installment will be released.
- If the Principal Investigator fails to submit the Project, the PI has to return the sanctioned amount with 15% of interest.

Secretary & Correspondent
Secretary & Correspondent
KAKARAPARTI BHAYANARAYANA COLLEGE
KAKARAPARTI BHAYAWADA-1.

### Copy to

- The Principal,
   K.B.N. College.
- The Director,
   Research Promotion & Monitoring Cell,
   K.B.N. College.

### KBN COLLEGE: VIJAYAWADA

### APPLICATION FOR FINANCIAL SUPPORT TO MINOR RESEARCH PROJECT FUNDED BY MANAGEMENT

Title of the Project

: 'Mango Fruit Detection & counting using CNN'

2. Name of the Principal Investigator: P. Ravindra

Permanent Address: KBN College, Vijayawada

Title: Mango Fruit Detection and Counting using Convolutional Neural Networks (CNN)

### Introduction:

The accurate detection and counting of mango fruits in orchards and farms play a crucial role in efficient crop management, yield estimation, and resource allocation. Traditional methods for fruit counting are labor-intensive and time-consuming. This project proposal aims to develop an automated mango fruit detection and counting system using Convolutional Neural Networks (CNN) and image processing techniques.

Objectives:

a) Develop a CNN-based model capable of accurately detecting and counting mango fruits in images.

b) Create a user-friendly interface for farmers and agricultural experts to upload images

and receive real-time fruit count results.

 Enhance mango crop management practices through timely and accurate fruit counting. Methodology:

a) Data Collection: Gather a diverse dataset of mango orchard images containing various lighting conditions, backgrounds, and fruit densities.

b) Data Annotation: Annotate the dataset to identify the locations and counts of mango fruits.

c) Model Architecture: Choose or design a suitable CNN architecture for object detection, such as Faster R-CNN, YOLO, or SSD.

d) Model Training: Train the chosen CNN model using the annotated dataset, employing techniques like transfer learning for improved convergence.

e) Validation and Testing: Evaluate the model's performance on a separate test dataset using metrics like mean average precision (mAP).

f) User Interface Development: Develop a user-friendly web or mobile application allowing users to upload images and receive real-time fruit count results.

g) Real-time Inference: Implement the trained model for real-time fruit detection and counting on new, unseen images.

### Expected Outcomes:

a) A trained CNN model capable of accurately detecting and counting mango fruits in

b) An intuitive user interface for easy interaction and access to fruit count results.

c) Improved mango crop management through efficient resource allocation and yield estimation.

### Timeline:

- a) Data Collection and Annotation: 2 months
- b) Model Development and Training: 3 months
- User Interface Development: 2 months
- d) Testing and Validation: 2 months
- e) Integration and Deployment: 1 month

#### Conclusion:

This project proposal aims to address the need for accurate and efficient mango fruit detection and counting in agricultural practices using Convolutional Neural Networks. By developing a robust model and an accessible user interface, this project can contribute significantly to enhancing mango crop management, enabling better resource allocation, and ultimately leading to increased yield and reduced losses for farmers.

- 4. Names and addresses of two experts in the area of the project:
  - a. Dr. M. Babu Reddy, Department of CSR, Krishna University, Machilipatnam, AP
  - b. Dr. Pathanjali Sastry, PSCMR College of Engineering & Technology, Vijayawada, AP
- 5. Experience of the Principal Investigator in the area of the Project:

Pl: 10 Years

6. Budget proposals

Item	Amount allocated
Field Work	Rs.24,000
Purchase of datasets & Plagiarism check	Rs.15,000
Hiring Services for Camera	Rs.20,000
Travelling Allowance	Rs.10,000
Research Assistance	Rs.5,000
Books & Journals	Rs.5,000
Software	Rs.60,000
Contingencies	Rs.15,000
Total	Rs.1,54,000

7. Bio data of the Principal Investigator: Enclosed

Signature of the PI

Signature of the Principal

PRINCIPAL-FAC
Kakaraparti Bhavonarayana College
VIJAYAWADA-1.



Email: info@kbncollege.ac.in



### KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

(Sponsored by: S.K.P.V.V. Hindu High Schools' Committee) Kothapeta, VLJAYAWADA – 520 001.

A College with Potential for Excellence (CPE) All India 92<sup>nd</sup> Rank in NIRF by MHRD (2017)

ISO 9001-2015 CERTIFIED INSTITUTION

Accredited by NAAC with "A" Grade in Cycle 3

### Proceedings of the Managing Committee

Date: 27th January, 2021

Department: English

Sub: Financial Assistance to Minor Research Projects – cum Approval – Sanction – Release of First Installment – Reg.

Sir / Madam,

This has reference to the Minor Research Project proposal submitted by Dr. H. Narendra Kumar, Department of English entitled 'The Phonetics of English and the Spoken English: A Phonetic Study on the abilities of English Lecturers in Andhra Pradesh' for financial assistance and to inform you that the proposal has approved and a grant of Rs.40,000 to the principal investigator (PI) for under taking the above mentioned Minor Research Project as per the items of expenditure listed below:

Item	Amount allocated	Amount sanctioned as 1st Installment
Travelling allowances	Rs.5,000	Rs.5,000
Field Work & Phonetic Devices	Rs.5,000	Rs.5,000
Contingencies	Rs.15,000	GET TO THE TOTAL CONTROL OF THE TOTAL CONTROL OT THE TOTAL CONTROL OF TH
Books & Journals	Rs.10,000	Rs.5,000
Visipitch & Spectrographic works	Rs.5,000	· •
Total	Rs.40,000	Rs.15,000

- An amount of Rs.15,000/- is presently released as the first installment for carrying out the project.
- You are directed to incur the expenditure on the items specified as per the above limits and submit the expenditure statement and utilization certificate accordingly.
- The books and equipment (except consumables) purchased for the project shall be properties of the college and the PI is required to hand over the same to be concerned after completion of the project.

- 4. The project is to be completed within a period of 12 months and submit the report on the project.
- The PI is required to submit progress report for every quarter, based on the same, the second installment will be released.
- 6. If the Principal Investigator fails to submit the Project, the PI has to return the sanctioned amount with 15% of interest.

Secretary & Correspondent

Secretary & Correspondent
KAKARAPARTI BHAVANARAYANA COLLEGE
VIJAYAWADA-1.

### Copy to

- The Principal,
   K.B.N. College.
- 2. The Director,

  Research Promotion & Monitoring Cell,

  K.B.N. College.

### KBN COLLEGE: VIJAYAWADA

### APPLICATION FOR GRANT-IN-AID FOR A RESEARCH PROJECT

- Title of the Project: The Phonetics of English and The Spoken English:
   A Phonetic Study on the abilities of English Lecturers in Andhra Pradesh.
- 2. Name of the Principal Investigator: Dr. H. Narcndra Kumar
- Permanent Address: D.No.11/112-27, Behind American Hospital, Eluru Road, Gudiwada-521301.

### 4. Proposed Budget:

S. No.	Item	Estimated Expenditure in terms of Rs.
1	Travel	Rs.5,000
2	Field work & Phonetic Devices	Rs.5,000
3	Contingency	Rs.15,000
4	Books & Journals	Rs.10,000
5	Visipitch and Spectrographic works	Rs.5,000
	Total Budget	Rs.40,000

### 5. Plan of Work:

Months	Target to be achieved
0-3	Literature survey / Data collection
3-6	Analysis of the data
6-9	Discussion and findings
9-12	Publication

Signature of the Principal Investigator

Name: Dr. H. Narendra Kumar

Designation: Head, Dept. of English

## KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

(Sponsored by: S.K.P.V.V. Hindu High Schools' Committee) Kothapeta, VIJAYAWADA - 520 001.

A College with Potential for Excellence (CPE) All India 92nd Rank in NIRF by MHRD (2017)

ISO 9001:2015 Certified Institution

NAAC 'A' Grade Cycle 3

### PROCEEDINGS OF THE MANAGING COMMITTEE

July, 2019

Department: Physics

Subject: Approval and Grant Notification for Minor Research Project - Reg.

### Dear J. Panduranga Rao,

I am writing to inform you that your submitted Minor Research Project proposal titled "Thermo-Physical, Spectral Evaluation of Molecular Interactions in Liquid Binaries of Diethyl Malonate and Amides at Temperatures (303.15, 308.15, 313.15, 318.15) K' has been approved for financial assistance. The project has been granted a sum of Rs.1,33,000 to support your research endeavors in the Department of Physics.

The approved grant will be disbursed based on the following expenditure items:

Item	Amount allocated	Amount sanctioned as 1 <sup>st</sup> Installment
Books & Journals	Rs.15,000	E.
Chemicals	Rs.12,000	Rs.12,000
Glassware	Rs.13,000	Rs.13,000
Instruments	Rs,84,000	Rs.84,000
Contingences & Stationary	Rs.9,000	-
Total	Rs,1,33,000	Rs.1,09,000

- An initial installment of Rs.1,09,000/- has been released to facilitate the commencement of the project.
- Kindly ensure that the allocated funds are utilized in accordance with the predefined expenditure limits.
   You are required to provide an expenditure statement and a utilization certificate upon completion of the project.
- Any books and equipment procured for the project, excluding consumables, will become the property of the college. The college management will directly facilitate payment to the supplier.
- The project's timeline mandates completion within 18 months, culminating in the submission of a comprehensive project report.
- In order to facilitate your research progress, we kindly request that you submit a quarterly progress report.
   The release of the second installment will be contingent upon the evaluation of these reports.
- Please be aware that in the event of non-submission or incomplete execution of the project, the Principal Investigator shall be obligated to return the sanctioned amount along with a 15% interest.

We extend our best wishes for the successful execution of your research project. Your contributions are anticipated to significantly benefit the Department of Physics and contribute to the advancement of knowledge in your field.

Copy:

The Principal, KBN College

Secretary & Correspondent Secretary & Correspondent KAKARAPARTI BHAVANARAYANA COLLEGE

VIJAYAWADA-1.

# KAKARAPARTI BHAVANARAYANA COLLEGE:: VIJAYAWADA APPLICATION FOR RESEARCH PROJECT

 Title of the Project : 'Thermo-Physical, Spectral Evaluation of Molecular Interactions in Liquid Binaries of Diethyl Malonate and Amides at Temperatures (303.15, 308.15, 313.15, 318.15) K

- 2. Name of the Principal Investigator: J. Panduranga Rao
- 3. Permanent Address: Vijayawada

#### 1. Introduction:

The study of molecular interactions in liquid binary systems is crucial for understanding their behavior under different conditions. Diethyl malonate, a versatile compound, forms interactions with amides that can have significant implications for various applications, including pharmaceuticals and chemical processes. This project aims to investigate the thermophysical and spectral properties of molecular interactions in liquid binary mixtures of diethyl malonate and amides at different temperatures.

### 2. Objectives:

- a. Analyze the temperature-dependent thermo-physical properties (density, viscosity, and refractive index) of liquid binary mixtures of diethyl malonate and amides.
- b. Investigate molecular interactions through spectral analysis, including UV-Vis and FT-IR spectroscopy.
- c. Provide insights into the nature and strength of interactions, aiding in the understanding of solution behavior.

### 3. Methodology:

- a. Materials and Sample Preparation: Acquire high-purity diethyl malonate and selected amides. Prepare liquid binary mixtures with varying composition ratios.
- b. Thermo-Physical Property Measurements: Measure density using a suitable densitometer, viscosity using a viscometer, and refractive index using a refractometer at specified temperatures.
- c. Spectral Analysis: Use UV-Vis spectroscopy to study electronic transitions and FT-IR spectroscopy to investigate molecular vibrations in the mixtures.
- d. Data Interpretation: Analyze the collected data to identify trends in thermo-physical properties and spectral shifts as a function of composition and temperature.
- e. Molecular Interaction Modeling: Use theoretical models (e.g., Flory-Huggins, UNIFAC) to interpret the observed trends and quantify interaction parameters.
- f. Data Visualization and Presentation: Prepare graphs, charts, and tables to present the findings effectively.

### 4. Expected Outcomes:

- a. Comprehensive dataset of thermo-physical properties (density, viscosity, refractive index)
   of diethyl malonate and amide mixtures at different temperatures.
- Spectral analysis results highlighting molecular interactions, shifts, and changes in electronic and vibrational behavior.
- c. Insights into the nature and strength of interactions between diethyl malonate and amides in liquid solutions.

#### 5. Timeline:

- Sample Preparation and Equipment Setup: 1 month
- Thermo-Physical Property Measurements: 3 months
- Spectral Analysis: 2 months
- Data Interpretation and Modeling: 2 months
- Report Compilation and Presentation: 1 month

#### 6. Conclusion:

This project proposal aims to provide a comprehensive understanding of molecular interactions in liquid binary mixtures of diethyl malonate and amides at various temperatures. By analyzing thermo-physical properties and employing spectral analysis, the project seeks to contribute valuable insights into the nature of interactions, which can have applications in fields such as chemistry, materials science, and pharmaceuticals.

### 4. Names and addresses expert in the area of the project:

Dr. B. Lakshmana Rao, VSR Govt. Degree College

5. Experience of the Principal Investigator: 15 Years

#### 6. Budget proposals

Books & Journals, Rs.15,000

Chemicals, Rs.12,000

Glassware, Rs.13,000

Instruments, Rs.84,000

Contingences & Stationary, Rs.9,000

#### 7. Bio data of the Principal Investigator: Enclosed

Signature of the PI:

Signature of the Principal:



### KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

(Sponsored by: S.K.P.V.V. Hindu High Schools' Committee) Kothapeta, VIJAYAWADA - 520 001.

A College with Potential for Excellence (CPE) All India 92<sup>nd</sup> Rank in NIRF by MHRD (2017)

### Proceedings of the Managing Committee

Date: 28.8.2018.

Department: COMPUTER SCIENCE

Sub: Financial Assistance to Minor Research Projects - Approval cum Sanction Order - Reg.

Sir / Madam.

This has reference to the Minor Research Projects proposal submitted by T. David Johnson, Department of Computer Science entitled 'A Comparative Study of Machine Learning Algorithms for Sentiment Analysis on Social Media Data' and 'DNA Based Security System Based on DNA ASCII Table Using 16X16 Key Matrix' for financial assistance and to inform you that the proposals has approved and a grant of Rs.1,15,000 to the principal investigator (Pl) for under taking the above mentioned Minor Research Project as per the items of expenditure listed below:

Item	Amount allocated	Amount sanctioned as 1 <sup>st</sup> Installment
Books & Journals	Rs.20,000	Rs.10,000
Field Work	Rs.15,000	Rs.7,500
Travelling allowance	Rs.10,000	Rs.5,000
Contingences	Rs.25,000	
Software	Rs.45,000	Rs.45,000
Total	Rs.1,15,000	Rs.67,500

- 1. An amount of Rs.67,500/- is presently released as the first installment for carrying out the project.
- You are directed to incur the expenditure on the items specified as per the above limits and submit the
  expenditure statement and utilization certificate accordingly.
- 3. The books and equipment (except consumables) purchased for the project shall be properties of the college and the PI is required to hand over the same to be concerned after completion of the project. For purchase of Nonconsumables PI is required to obtain Quotations / Bills and submitted the same through the Principal. The same will be paid directly by the management to the supplier.
- 4. The project is to be completed within a period of 12 months and submit the report on the project.
- The PI is required to submit progress report for every quarter, based on the same, the second installment will be released.
- If the Principal Investigator fails to submit the Project, the PI has to return the sanctioned amount with 15% of interest.

Secretary & Correspondent

Secretary & Correspondent

KAKARAPARTI BHAVANARAYANA COLLEGE

VIJAYAWADA-1.

Copy to: The Principal, K.B.N. College.

## KAKARAPARTI BHAVANARAYANA COLLEGE:: VIJAYAWADA APPLICATION FOR RESEARCH PROJECT

1. Title of the Project : 'A Comparative Study of Machine Learning Algorithms for Sentiment Analysis on Social Media Data'

'DNA Based Security System Based on DNA ASCII Table Using 16X16 Key Matrix

- 2. Name of the Principal Investigator: T. David Johnson, Lecturer, Department of Computer Science
- 3. Name of the Co-Principal Investigator: Smt. P. Bharathi Devi, Dept. of Computer Science
- 4. Permanent Address: Vijayawada

Executive Summary:

This project aims to conduct a comprehensive comparative study of various machine learning algorithms for sentiment analysis on social media data. The objective is to determine the most effective algorithm for accurately classifying sentiments expressed in social media text. The study will involve data collection, preprocessing, feature extraction, model training, evaluation, and benchmarking to provide valuable insights into the performance of different algorithms.

#### Objectives:

- Collect and preprocess a diverse dataset of social media text for sentiment analysis.
- Explore and implement a range of machine learning algorithms, including but not limited to Naive Bayes, Support Vector Machines (SVM), Random Forest, and Recurrent Neural Networks (RNN).
- Evaluate the performance of these algorithms based on metrics such as accuracy, precision,
   recall, F1-score, and execution time.
- Identify the strengths and weaknesses of each algorithm in handling social media sentiment analysis.
- Provide insights and recommendations for selecting the most appropriate algorithm based on specific use cases and data characteristics.

#### Expected Outcomes:

- Algorithm Performance: A comprehensive comparison of the selected machine learning algorithms' performance for sentiment analysis on social media data.
- Insights: Insights into the strengths and weaknesses of each algorithm, along with their suitability for different types of social media text.

- Recommendations: Guidelines for selecting the most appropriate algorithm based on specific use cases and requirements.
- Contributions: Valuable contributions to the field of sentiment analysis and machine learning by providing empirical evidence of algorithm effectiveness.

#### Timeline:

- Phase 1 (Months 1-2): Data collection, preprocessing, and exploratory analysis.
- Phase 2 (Months 3-4): Algorithm implementation and model training.
- Phase 3 (Months 5-6): Model evaluation, benchmarking, and result analysis.
- Phase 4 (Months 7-8): Report writing, insights generation, and recommendations.
- Phase 5 (Months 9-10): Presentation preparation and dissemination of findings.

#### Conclusion:

This project aims to contribute to the field of sentiment analysis by conducting a thorough comparative study of machine learning algorithms on social media data. By identifying the most effective algorithm and providing insights into their performance characteristics, this study will aid researchers and practitioners in making informed decisions when selecting algorithms for sentiment analysis tasks on social media platforms.

Names and addresses expert in the area of the project:

Dr. E. Kiran Kumar, KL University, Guntur

5. Experience of the Principal Investigator: 10 Years

### 6. Budget proposals

Books & Journals	Rs.20,000
Field Work	Rs.15,000
Travelling allowance	Rs.10,000
Contingences	Rs.25,000
Software	Rs.45,000
Total	Rs.1,15,000

7. Bio data of the Principal Investigator: Enclosed

Signature of the PI:

Signature of the Principal:

### KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

(Sponsored by: S.K.P.V.V. Hindu High Schools' Committee) Kothapeta, VIJAYAWADA – 520 001.

A College with Potential for Excellence (CPE) All India 92<sup>nd</sup> Rank in NIRF by MHRD (2017)

### Proceedings of the Managing Committee

Date: 28.8.2018.

Department: MBA

Sub: Financial Assistance to Minor Research Projects-Approval cum Sanction Order - Reg.

Sir / Madam,

This has reference to the Minor Research Project proposals submitted by Dr. Mazharunnisa, Department of MBA entitled 'A Study on the Changing Investment Pattern among the Young Employees' and 'Cash flow management in Vijaya Dairy' for financial assistance and to inform you that the proposals have approved and a grant of Rs.1,25,000 to the principal investigator (PI) for under taking the above mentioned Minor Research Projects as per the items of expenditure listed below:

Item	Amount allocated	Amount sanctioned as 1 <sup>st</sup> Installment
Books & Journals	Rs.27,000	Rs.13,500
Field Work	Rs.25,000	Rs.12,500
Travelling allowance	Rs.20,000	Rs.10,000
Contingences & Stationary	Rs.30,000	*
Work Assistance	Rs.23,000	Rs.11,500
Total	Rs.1,25,000	Rs.47,500

- 1. An amount of Rs.47,500/- is presently released as the first installment for carrying out the projects.
- You are directed to incur the expenditure on the items specified as per the above limits and submit the expenditure statement and utilization certificate accordingly.
- 3. The books and equipment (except consumables) purchased for the projects shall be properties of the college and the PI is required to hand over the same to be concerned after completion of the projects. For purchase of Nonconsumables PI is required to obtain Quotations / Bills and submitted the same through the Principal. The same will be paid directly by the management to the supplier.
- 4. The projects are to be completed within a period of 18 months and submit the report on the projects.
- The PI is required to submit progress report for every quarter, based on the same, the second installment will be released.
- If the Principal Investigator fails to submit the Projects, the PI has to return the sanctioned amount with 15% of interest.

Secretary & Correspondent Secretary & Correspondent KAKARAPARTI BHAVANARAYANA COLLEGE VIJAYAWADA-1.

Copy to: The Principal, K.B.N. College.

### KAKARAPARTI BHAVANARAYANA COLLEGE:: VIJAYAWADA APPLICATION FOR RESEARCH PROJECT

1. Title of the Project

: 'A Study on the Changing Investment Pattern among the Young Employees'

'Cash flow management in Vijaya Dairy'

2. Name of the Principal Investigator: Dr. Mazharunnisa

3. Permanent Address: Vijayawada

4. Project Introduction:

In today's rapidly evolving economic landscape, the investment behavior of young employees has gained considerable attention. This project aims to comprehensively analyze the changing investment patterns among young employees, focusing on the factors influencing their decisions, the types of investments preferred, and the impact of external factors such as technological advancements, economic conditions, and social trends.

### Objectives:

- To understand the driving forces behind the changing investment patterns among young employees.
- To identify the types of investments that are gaining popularity among this demographic.
- To analyze the role of technological advancements and digital platforms in shaping investment decisions.
- To examine the impact of economic conditions and social trends on investment preferences.
- To provide insights and recommendations for financial institutions, employers, and policymakers to better cater to the investment needs of young employees.

#### Expected Outcomes:

- A detailed understanding of the factors shaping the investment choices of young employees.
- Insights into the preferred investment instruments and their reasons for popularity.
- An assessment of the role of technology in influencing investment decisions.
- Identification of the impact of economic conditions and social trends on investment patterns.
- Recommendations for financial institutions, employers, and policymakers to adapt their offerings to meet the evolving investment needs of young employees.

### Significance:

This study will contribute to the existing body of knowledge on investment behavior, especially among young individuals. The findings will have practical implications for financial institutions looking to tailor their products and services, employers aiming to enhance

employee financial wellness, and policymakers interested in fostering a financially literate and secure workforce.

Timeline:

Literature Review: 2 month

Survey Development and Administration: 3 months

Interviews and Data Collection: 4 months

Data Analysis: 3 months

Report Writing and Presentation: 2 month

#### Conclusion:

This project aims to shed light on the dynamic investment preferences of young employees in the contemporary financial landscape. By examining the interplay of factors influencing investment decisions, the study will provide actionable insights to various stakeholders, ultimately contributing to a more informed and strategic approach to meeting the financial needs of the younger generation..

### Names and addresses expert in the area of the project:

Dr. Ch. Jaya Sankara Prasad, Krishna University, Machilipatnam

- 5. Experience of the Principal Investigator: 15 Years
- 6. Budget proposals

Books & Journals	Rs.27,000	
Field Work	Rs.25,000	
Travelling allowance	Rs.20,000	
Contingences & Stationary	Rs.30,000	
Work Assistance	Rs.23,000	
Total	Rs.1,25,000	

7. Bio data of the Principal Investigator: Enclosed

Signature of the PI:

Signature of the Principal: