

**RAYAT SHIKSHAN SANSTHA'S
ARTS, SCIENCE AND COMMERCE COLLEGE, R AMANANDNAGAR (BURLI)
TAL.-PALUS, DIST. - SANGLI.**

RESEARCH PROMOTION COMMITTEE
Students Research Papers/ Projects
Academic Year: 2018-19

Sr. No.	Name of the Scheme	Subject	Research Project/ Papers
1	Chem-vision Proceeding	Chemistry	Research Papers
2	Avishkar research projects	All departments	Research Project
3	Research Sensitization Scheme for College Students under Lead College activity	Chemistry	Research Project

 Dr. Ms. Raut V.S. Chairman, Research Promotion Committee A. S. C. College, Ramanadnagar (Burli)		 Principal Arts, Science & Commerce College, Ramanandnagar (Burli)
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"Education through self-help is our motto"-Karmaveer

Rayat Shikshan Sanstha's

**Arts, Science and Commerce College,
Ramanandnagar (Burli)**

Founder : Karmveer Bhaurao Patil

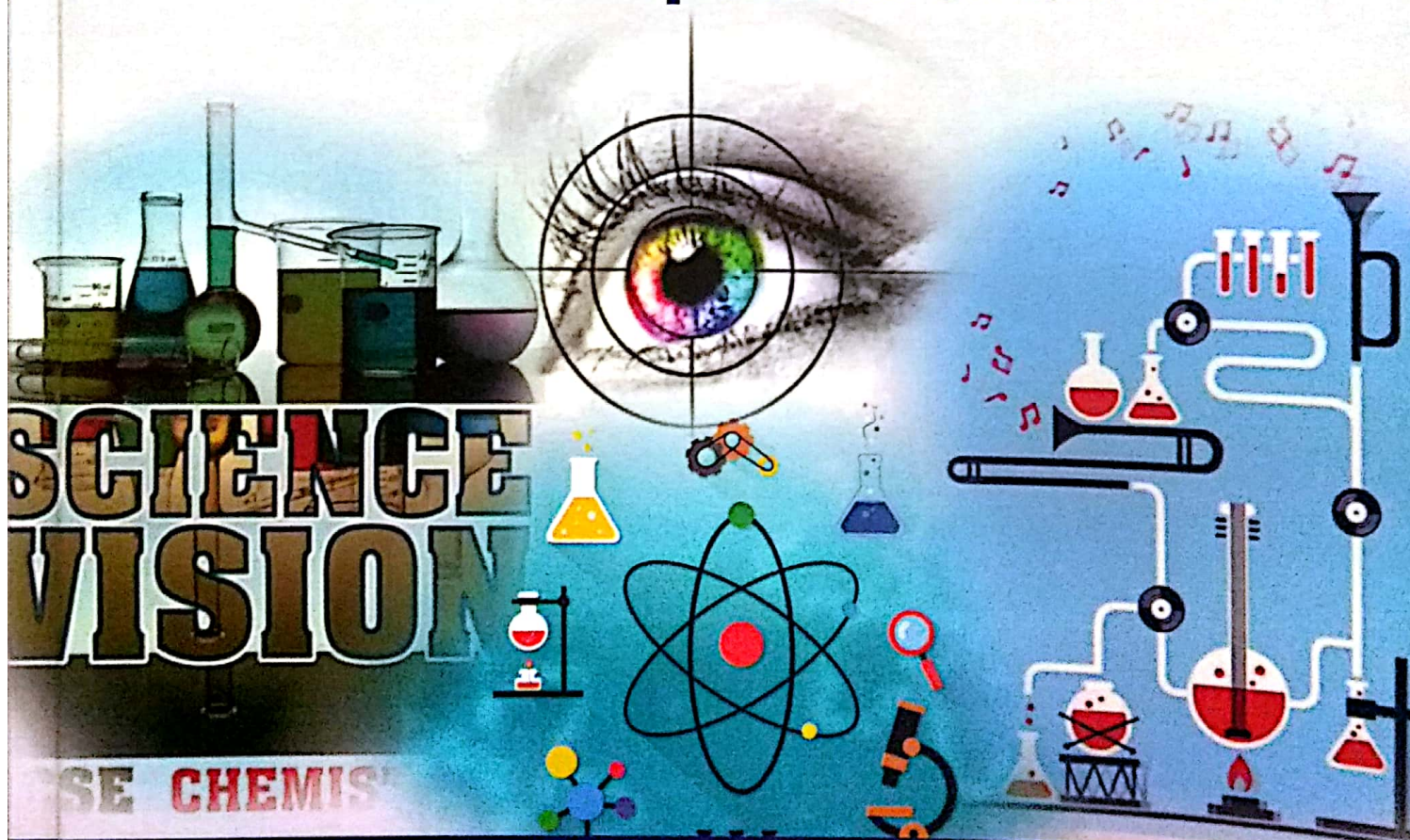
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Chem -Vision

Golden Jubilee Year Special Issue No. II 2018-2019



Department of Chemistry

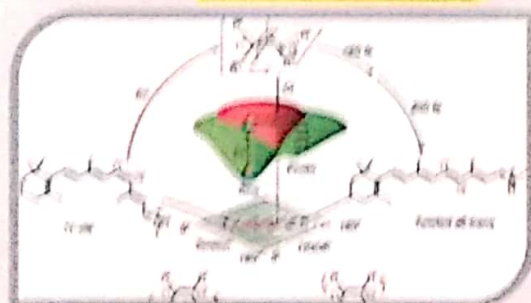
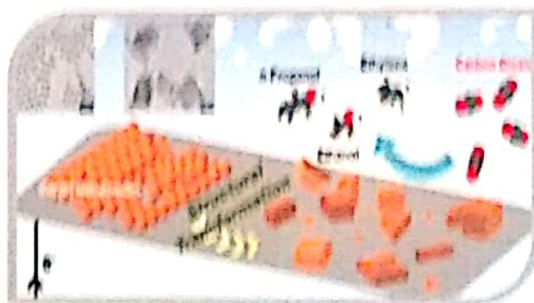
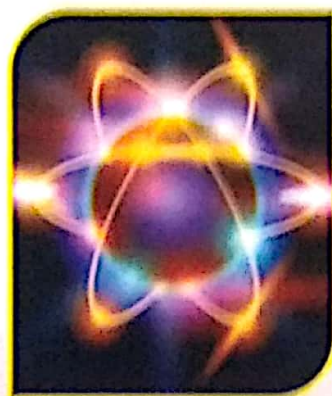
ASC College Ramanandnagar (Burli), Tal- Palus, Dist- Sangli – 416 308.

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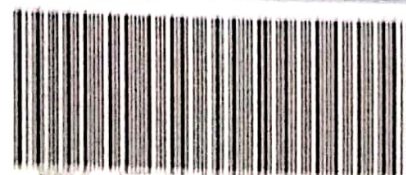
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Rayat Shikshan Sanstha's
Arts, Science and Commerce College Ramanandnagar (Burli)

Avishkar Research Projects

2018-19

Sr. No.	Criterion	Name of the Students	Title of the Project
1	Engineering & Technology	1.IngaleShivani Sunil 2.MaskeYogitaRavaji	Green Computing
2	Medicine & Pharmacy	3. Salunkhe Ruturaj Hanmant 4. SakharePallavi Suresh	Cold Cream Preparation
3	Languages, Humanities, Fine Arts & Education	5.Patil Pooja Pralhad 6. Hippargi Pratiksha Sangappa	Me Too
4	Commerce & Management	7. Jadhav Yojana Sanjay 8. Sawat Anjali Ashok	Ek Nagarik Ek Card Olakhpatra
5	Pure Science	9. Sutar Trupti Shankar 10. Mulik KishoriKrishnaji	Automatic Water Level Controller
6	Agriculture	11. Jadhav Sivprasad Dilip 12. Chavan Akshay Khasharam	Save Tree Save Earth


Dr. Ms. Raut V.S.
 Chairman, Research Promotion Committee
 A. S. C. College, Ramanadnagar (Burli)




Principal
 Arts, Science & Commerce College,
 Ramanandnagar (Burli)

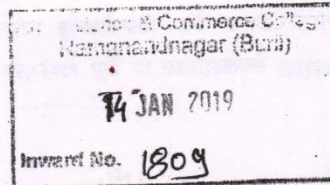
	<p>“स्वावलंबी शिक्षण हेच आमचे द्योत” - कर्मवीर</p> <p>रयत शिक्षण संस्था, सातारा</p> <p>संस्थापक - कर्मवीर भाऊराव पाटील, डी.लिद.</p> <p>स्थापना: १९९९</p> <p>Website : www.rayatshikshan.edu</p> <p>E-mail : secretary@rayatshikshan.edu</p> <p>Fax No-02162-231424</p>	<p>फॅक्स नं.: २३१४२४</p> <p>(एस.टी.डी.) (०२१६२)</p> <p>२३४४६६, २३३८५७,</p> <p>२३२४४४, २२८५६६, २३४८५७</p> <p>तारखा पत्ता: 'रयत'</p> <p>जावळ नं.: स्कील/</p> <p>दिनांक: २६/१२/१८</p>
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प्रति,
प्राचार्य,
कला, विज्ञान व वाणिज्य महाविद्यालय,
रामानंदनगर

विषय : रयत अविष्कार संशोधन प्रकल्पासाठी आर्थिक मदतीबाबत . .
संदर्भ १) कार्यालय, रयत शिक्षण संस्था, सातारा येथील दि.८/०८/२०१८ ची आढावा बैठक.
२) आमचेकडील जा.क्र.स्कील/१२४४६ दि.३०/०८/२०१८ चे पत्र.

उपरोक्त विषयाबाबतच्या संदर्भित पत्रास अनुसरून कळविण्यात येते की, आपल्या महाविद्यालयात रयत अविष्कार संशोधन प्रकल्प कार्यरत आहे. सदर प्रकल्पासाठी संस्थेच्या यशवंतराव चव्हाण कॉर्पस फंडातून आपल्या महाविद्यालयास रक्कम रु.१०,०००/- (अक्षरी रुपये दहा हजार फक्त) चेक नं. ९६३० तारीख ३१/१२/१८ ने सोबत पाठवून देत आहे.

सदर रकमेचा विलियोग फक्त याच प्रकल्पासाठी करावा. त्यासाठी महाविद्यालयाने प्रयोगशाळा उभारणे, कार्यशाळा, उपकरणे, प्रकल्प इत्यादीसाठी खर्च करावा, याव्यतिरिक्त इतर घटकावर खर्च करू नये, याची नोंद घ्यावी. तसेच केलेल्या कार्यवाहीचा सविस्तर अहवाल दि.३१/१२/२०१८ पूर्वी या कार्यालयाकडे rayatproject@gmail.com या ईमेलवर पाठवावा.



(प्रि.डॉ.भाऊसाहेब कराळे)
सचिव,
रयत शिक्षण संस्था, सातारा

श्री. डी. भाऊसाहेब कराळे
२६/१२/१८
सोबत - चेक
२६/१२/१८
for W/Pg

Itendra/Check Letter Avishkar/p*6

(3)

Shivaji University, Kolhapur
RESEARCH SENSITIZATION SCHEME FOR COLLEGE STUDENTS
 Application for the Financial Support to Research Project
 (To be submitted to the Lead College)

Name of the College	Rayat Shikshan Sanstha's Arts, Science and Commerce College, Ramanandnagar (Burli) Tal. Palus Dist. Sangli
Name of the Students	1. Miss. Jadhav Kshitija nandkumar 2. Miss. Ghatage Pooja Hanumant 3. Miss. Khambalkar Priyanka Narayan 4. Miss. Sawant Rutuja Ashok
Title of the Project	Extraction of pigments from flowers & beet root & used as an acid-base indicator
Area of research Project/ Subject	Solvent extraction/ Chemistry
Details of the research project	
i. Problems and its importance	An acid-base indicator is a substance which changes color according to how acidic or basic it's medium. Today synthetic indicators is the choice for acid-base titration, but we observe the environmental pollution, availability and cost of synthetic indicator the natural indicators are used in acid-base titration. Red roses, as well as many other flowers and fruits, contain natural indicators that are sensitive to acids and bases. One of the most well-known effects of nature indicators in plants occurs in the hydrangea or snowball plant. So we study the flowers like thunbergia cracta, Catharanthus roseus, tecoma stans, bougainvillea glabra and beet, beta vulgaris (red beet), which can be used as natural indicators in acid-base titrations. We observe that there natural indicators are found to be very useful, economical, simple, accurate, eco-friendly, we compared to the synthetic indicators with natural indicators, they cause the environmental pollution, the cost is high. The use of natural indicators is acid-base titration was first reported in 1664 by 'Sir Robert Boyle'. In his collection of essay "Experimental History of Colour" Any flower such as blue, purple, or red in colour contains a class of organic pigments called anthocyanin's. that changes colour with pH. We observe titration shows sharp colour changes at the equivalence point. The equivalence point obtained by flower and some fruit extract coincide with the equivalence points obtained by flower and some fruit extract coincide with the equivalence points obtained by standard indicator. This natural indicator is very useful for acid-base titration.
ii. Objectives	1. Use of natural indicators 2. To minimize the hazardous waste 3. To keep green approach 4. To reduce the use of toxic Chemicals

iii. Methodology	<p>A. Preparation of l=flower extract</p> <ol style="list-style-type: none"> 1. Take flowers of Bougainvillea glabra, Thunbergia cracta, Tecoma Stan's, Cathranthus roseus. 2. Remove the stigma and detach the leaves so as to have only theng. 3. The flowers petals are dried. By using mortar and pestle dry petals are crushed and powder is made. 4. The powder of each flower is mixed in different solvents like distilled water, acetone, alcohol, chloroforma, carbon tetrachloride, 50% alcohol, 50% acetone. 5. The flower extract is made in the solvent in which the powder is soluble or partially soluble. 6. Filter the solution. <p>B. Prepration of beetroot indicator:</p> <ol style="list-style-type: none"> 1. 205 g chopped beetroot is added to 50 cm3 of boiling water in a beaker and boiled continuously for 25 minutes. 2. After allowing the beaker to cool boiled beetroot is squashed and the liquid was filtered.
iv. Projected output	<p>These extracted pigments are used as an indicator in acid-base titrations. So by using these pigments you got best result and good substituent for synthetic indicator. These extracted indicators are green chemicals and eco-friendly. They are safe to handle. Also they are cheap easily available, affordable. The constant burette readings of the titrations using the natural Indicators almost reached close to the constant burette reading using the synthetic indicators like Phenolphthalein and methyl orange for all the titrations.</p>
v. Financial requirement	Rs. 10000/-
Any other information, if any	--

Signature and Signature of the Project Advisor

Dr. V. B. Patil *WRV*
 Mr. U. S. Shelke *US*

WV
HEAD,
 Department of Chemistry,
 L. S. G. College, Ramnandnagar

Signature and Signature of Students

Miss. Jadhav Kshitija nandkumar *RN Jadhav*
 Miss. Ghatage Pooja Hanumant *Phadage*
 Miss. Khambalkar Priyanka Narayan *Priyanka*
 Miss. Sawant Rutuja Ashok *Rasawant*

warded through Principal

Principal
Principal
 Arts, Science & Commerce College,
 Ramnandnagar (Burli)

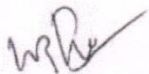
UTILIZATION CERTIFICATE

Certified that an amount of Rs. 10,000/- (Rupees Ten Thousands only) sanction to the Research Sensitization Scheme for College Students during the year 2018-19 an amount of Rs.10,250/-(Rupees Ten Thousands two hundred and fifty only) has been utilized for the purpose for which it was sanctioned and in accordance with the term and conditions as laid down by the University.

If as a result of check or audit objection same irregularly is noticed at a later stage action will be taken to refund the sectioned amount.

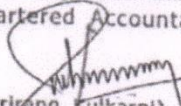
Kind of check exercised.

1. Verified the Audited statement of Accounts.
2. Verified the vouchers with relevant, Cash book, Ledger and Bank Pass Book.


Co-ordinator


Principal
Arts, Science & Commerce College,
Ramanandnagar (Burl)

For Sankpal Kulkarni & Associates
Chartered Accountants


(Shriping Kulkarni)
Partner, M. No. 108722
FRN 121256W

Chartered Accountant

