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Khandesh College Education Society's

Moolji Jaitha College, Jalgaon

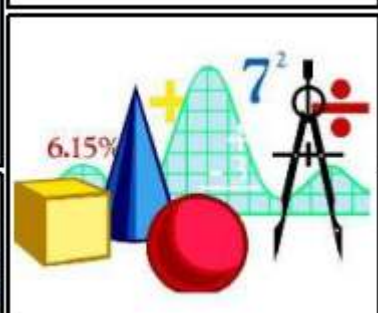
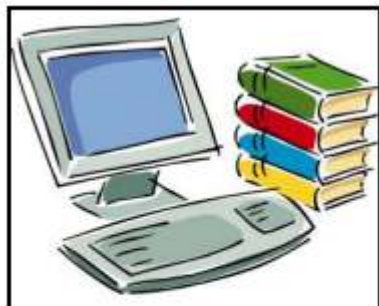


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Volume - X
(2018-19)

A Compendium of

Research Articles By Budding Researchers

(Research Promotion Scheme For Budding Researchers)



*A Compendium of
Research Articles by
Budding Researchers
VOL. - 10 (2018-19)*



**Khandesh College Education Society's
Moolji Jaitha College, Jalgaon**

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MESSAGE



I am delighted to write a few words of introduction to this research compendium, published by the Moolji Jaitha college. Today, the interdisciplinary research has become a vital issue all over the globe due to rise in pollution levels. Hence, in order to make students understand this concern, students are inspired to undertake research. It is solely aimed at 'developing research aptitude' within young minds. Such an initiation of within students, is of prime importance and will lead towards triggering future scientists. Moreover, this infiltration would definitely help them towards innovative research thoughts, applicable even outside of their domain of research.

I am confident that this exercise will boost the research aptitude amongst our future scientists. As a college of excellence, it will help the college to select talented youth for future research. I convey my compliments to all the staff members, who have guided the students and also for excellent compilation and printing of this 10th volume. I wish all the best for the future endeavors to all the staff and students of the college.

(Mr. Nandkumar G. Bendale)
Hon'ble President,
KCE Society, Jalgaon



॥ अंतरी पेटव् ज्ञानज्योत ॥

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Prof. P. P. Patil

Ph.D., F.M.A.Sc.

VICE-CHANCELLOR




MESSAGE

I am happy to know that M.J.College, Jalgaon is going to publish **A Compendium of Research Articles by Budding Researchers-Vol.10** comprising of 58 research projects of 145 students of Arts, Commerce and Science faculty.

This research compendium reflects efforts of the college in boosting research activities for under graduate and post graduate students of various faculties showing inclination towards research. Such programmes establishes research environment for the students to disseminate their knowledge and update their quality of research.

I congratulate the compilation team for their passion and continued aspiration towards boosting the research activities for UG and PG students, develop them to cater to the industrial needs and prepare them to face the undertain sutiations of the global environment business.

My best wishes to the Vol.10 of "**A Compendium of Research Articles by Budding Researchers.**"


(Prof.P.P.Patil)
Vice-Chancellor

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An 'Autonomous College' Affiliated to
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FROM THE DESK OF PRINCIPAL

It gives me immense pleasure that Moolji Jaitha College is publishing a compendium of abstracts of the research oriented projects completed by the students of undergraduate and post-graduate departments. It is a golden opportunity for the students to undertake research projects and thereby get an exposure to the research methodology.

Academic surveys have proved that a lot of learning occurs when students divert themselves towards research and not when traditional lecturing is imparted on to them. It also enhances the assimilation of knowledge and students get an opportunity to apply the same knowledge elsewhere.

The multi-disciplinary nature of some of the research topics is also a welcome attitudinal change. All the students who have participated in this project are really the budding researchers with bright future. I am sure that they will blossom into the renowned scientists in the times to come.

I wish that they extend their research oriented activity and pursue advanced research for their doctoral thesis in the future. I am also hopeful that the industries shall look at this enterprise to hunt the young talent.

As a Principal of the college, I, hereby, express my firm commitment for such endeavors on identifying talent and their nurturing for the future. I also thank all my colleagues for their untiring efforts to complete the Compendium in a very short duration of time and in an excellent way.

Best wishes.



(Dr. U. D. Kulkarni)

Principal

KCES's M. J. College, Jalgaon

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From the Desk of Editor

Since 2009-10, M. J. College, Jalgaon has initiated one of the best research scheme for students viz. 'Research Promotion Scheme for Budding Researchers' where the students of under Graduate & Post Graduate classes are involved. For the first two years, it was funded by UGC, New Delhi under the Scheme of "College with Potential for Excellence". After that college has funded for this scheme. This is a golden opportunity for the students to experience research at college level. Every year we are receiving overwhelming response of students for this scheme. This year, 145 students from 16 departments of Humanities, Commerce & Science faculty have participated in this scheme. They have completed 59 research projects under the guidance of 50 supervisors from our college. All these projects & presentations were evaluated by 14 senior faculty from K.B.C. North Maharashtra University & from affiliated colleges. The prizes were given to the students.



In this 10th volume of compendium of Budding Researchers there are total 59 research papers from the Life Sciences, Chemical Sciences, Physical Sciences, Computer Sciences including IT, Statistics, Commerce & Management, English, Sanskrit and Yogic Sciences. Students have undertaken diverse problems and prepared detailed report which was well presented by them.

As a coordinator of this scheme I am thankful to visionary President of Khandesh College Education Society, Jalgaon, Pradnyavant Mr. N. G. Bendale for encouraging & supporting this activity. I am also thankful to Prin. U. D. Kulkarni for allowing the students to use all the research facilities in the college & for funding this activity. Thanks are also due to all examiners from K.B.C. North Maharashtra University & from affiliated colleges, who with lot of patience examined the projects & evaluate the students.

I am very much thankful to Dr. D. G. Hundiwale and Dr. R. T. Mahajan, for their continuous suggestions and help. Also, I am thankful to all committee members Prof. J. N. Chaudhari, Prof. Gauri M. Rane, Dr. J. S. V. R. Krishnaprasad, Dr. Pradnya Jangale, Dr. Kalpana Nandanwar and faculty wise co-ordinators Dr. Bhushan Kavimandan, Miss. Shubhangi Bhangale, Dr. Pranav Patil, Mr. Sagar Badge and Dr. C. D. Mahajan for their great involvement in this endeavor. Last but not least this activity wasn't become successful without all Heads of the Departments, research guides & students. So I acknowledge them also.

Dr. Kunal Julal Ingale
Coordinator
Research Promotion Scheme
Moolji Jaitha College,
Jalgaon

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