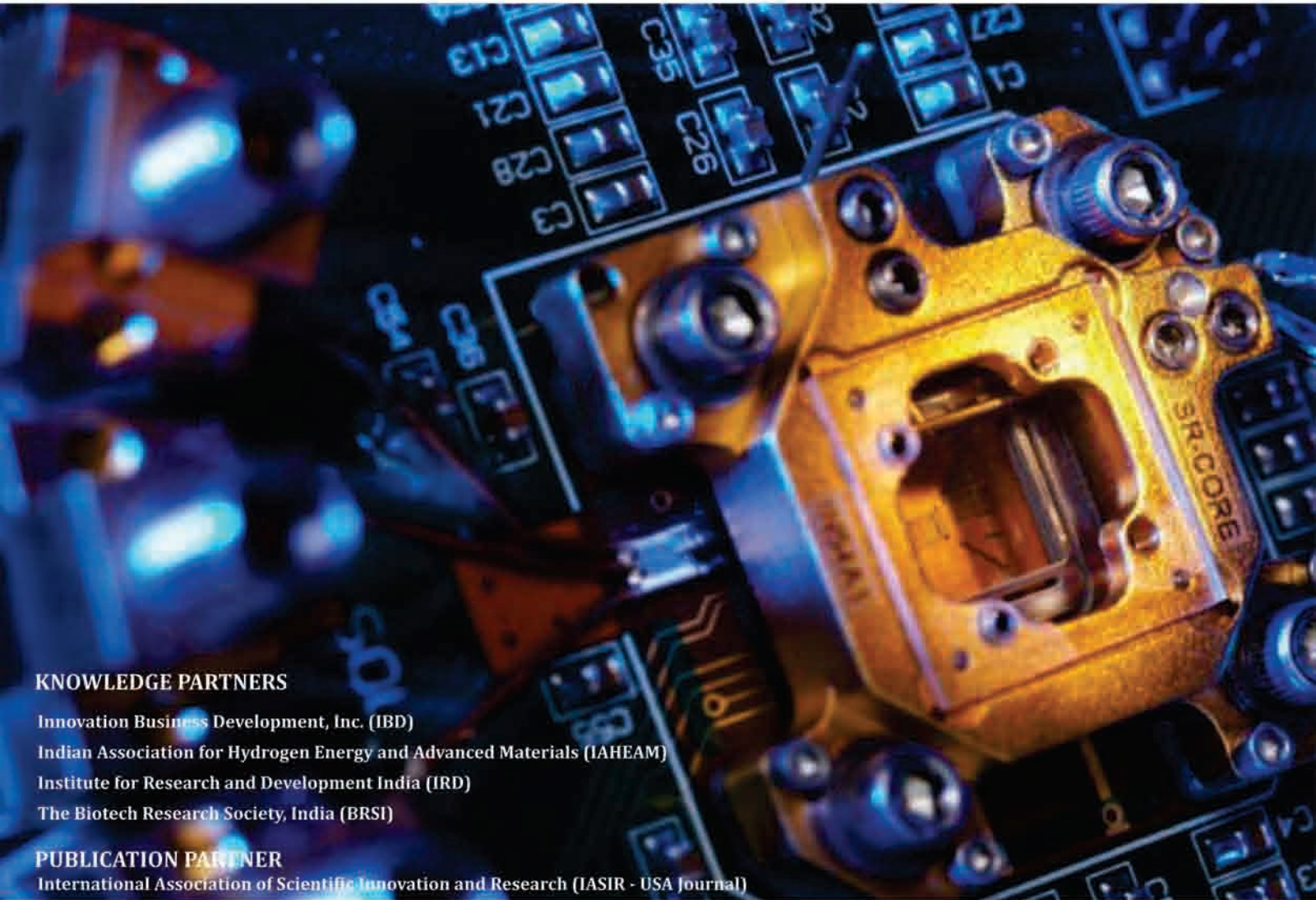


National Conference
On
Research Advances in Engineering & Technology
NCRAET 2019

15th March 2019



KNOWLEDGE PARTNERS

Innovation Business Development, Inc. (IBD)
Indian Association for Hydrogen Energy and Advanced Materials (IAHEAM)
Institute for Research and Development India (IRD)
The Biotech Research Society, India (BRSI)

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CSI COLLEGE OF ENGINEERING

(Church of South India, Coimbatore Diocesan Council)
Affiliated to Anna University, Chennai, Approved by AICTE, New Delhi

Venue : CSI College of Engineering, Ooty

BACKGROUND NOTE

India is one of the top-ranking countries in the field of basic research. Indian Science is regarded as one of the most powerful instruments of growth and development, especially in the emerging scenario and competitive economy. Research and Development plays a critical role in the innovation process. It's essentially an investment in technology and future capabilities which is transformed into new products, processes, and services. R&D is a crucial component of innovation and a key factor in developing new competitive advantages. Innovative breakthroughs have happened only because of painstaking efforts of the R&D function. Perseverant efforts are needed when one is in pursuit of research. In the wake of recent developments and emerging demands in the field of science and technology, it is necessary for us to embark on major projects that have relevance to national needs and which will be of use for tomorrow's technology. The Department of Science & Technology (DST) plays a pivotal role in the promotion of science & technology in the India.

India's Engineering R&D (ER&D) Globalization and Services market reached US\$ 22.3 billion in 2016 and is set to rise to US\$ 38 billion by 2020. India accounted for 40 per cent (US\$ 13.4 billion) of the total US\$ 34 billion of globalized engineering and R&D in 2016. The budget for the Ministry of Science and Technology, which focuses on core scientific research, was proposed to be hiked by 6.11 per cent - from INR 11,612.11 Crore in the previous Budget to INR 12,322.28 Crore in the Budget 2018-19. India has moved up to the 60th position in the 10th edition of Global Innovation Index (GII) in 2017 and will likely get into the list of the top 25 nations in the next 10 years. India ranks second amongst the countries with highest increase in contribution to high-quality scientific research. With the government's support, the R&D sector in India is all set to witness some robust growth in the coming years. According to a study by management consulting firm Zinnov, engineering R&D market in India is estimated to grow at a CAGR of 14 per cent to reach US\$ 42 billion by 2020.

This conference is organized to provide a platform for students, research scholars, scientists, academicians and industry practitioners to showcase their intellectual capabilities and gain insight in to research and developments happening currently all over the country. The scientific papers presented during this conference shall focus on its originality, suitability for a specific use, effectiveness upon its use and practicality for its implementation that shall act as a driver for advancement in science, engineering and technology in India.

"The Government of India aims to develop India into a global innovation hub by 2020 on the back of effective government measures taken to provide an enabling environment for growing research and development in India..."

**– Shri. Y. S. Chowdary,
Minister of State for Science and Technology & Earth Sciences,
Government of India.**

CONFERENCE THEME

Research and development in engineering and technology has been identified as the conference theme as this is one among the core areas contributing to economic growth and social development. The theme shall include all research areas in the faculty of engineering and technology.

CONFERENCE OBJECTIVE

The objective of this conference is to provide a platform for students, researchers, academicians, scientists and industry practitioners to share their intellectual capital that shall be of immense use to the society thereby paving way for an accelerated inclusive social growth, bring out constructive suggestions to policy makers and, facilitate the relevant industry to take it forward for use.

CALL FOR PAPERS

Students (Graduates & Post graduates), research scholars (M.Phil. & Ph.D.), academicians, scientists and industry practitioners' from all the branches of engineering and technology are invited to participate and present their research papers. Research papers are called from the following disciplines:

- AGRICULTURAL ENGINEERING
- COMPUTER SCIENCE ENGINEERING
- ELECTRICAL & ELECTRONICS ENGINEERING
- TELECOMMUNICATION ENGINEERING
- MECHANICAL ENGINEERING
- CIVIL ENGINEERING
- INFORMATION TECHNOLOGY ENGINEERING
- MANUFACTURING ENGINEERING
- CHEMICAL ENGINEERING
- TECHNOLOGY ENGINEERING

CATEGORIES OF RESEARCH PAPERS

1) Academic Papers

Academic research papers shall be either conceptual or empirical. The length of the paper shall be around 7000 words excluding acknowledgements and bibliography. *Conceptual research papers* should be comprehensive in nature and bring out new theoretical perspectives on the theme or in the focus disciplines as listed in the previous section. *Empirical research papers* should include substantial review of past literature, justify the need and importance of the study, the developed hypothesis and research design, data analysis and findings of the research. The paper should elaborate on theoretical and practical implications of the findings and the scope for further research in the area of discussion.

2) Case Studies

Typical cases are invited from all the disciplines of science and technology. Each case shall be of around 8000 words in length excluding acknowledgements and bibliography. Cases shall include a problem or a practice observed or experienced by the researcher and come out with solutions or better practices so as to overcome the identified research problem. All case studies must include teaching notes where the case is intended for academic use and publication. Teaching notes are not mandatory if the case study is not for academic use. Where a case study is connected to an organization, the original name and credentials of the organization is to be disclosed and a formal letter of 'No Objection' issued by that organization is to be submitted along with the case study.

3) Ph.D / M.Phil. Thesis

Research scholars who have submitted their thesis during the academic year 2016 - 18 may present their research work for the award of best research study. Research scholars pursuing M.Phil./ Ph.D. and who wish to present their research work shall do so as 'research in progress'.

SUBMISSION OF ABSTRACT

An abstract in around 200 words is to be submitted that shall include a summary of all the contents in the research paper and the process adopted by the researcher to conduct the study. Every abstract should include the title of the research paper, followed by the name of the author(s). Below the abstract, 5 to 7 key words are to be included. In the foot note, the author(s) affiliations are to be included. The abstract must be limited to a maximum of one A 4 page. **All abstracts are to be emailed to: ncraet.hillgrove@gmail.com**

SUBMISSION OF FULL PAPER

Once the abstract qualifies in the review process, authors will be communicated about the submission of their full paper. Upon the receipt of the full paper, the paper will be tabled for peer review and tested for plagiarism. Qualifying papers will be selected for presentation during the conference and publication thereafter. After which, the author(s) will be communicated about the final registration with the payment of applicable registration fee. Authors of selected papers are required to submit a declaration with regard to originality of their work and plagiarism. **All full papers are to be emailed to: ncraet.hillgrove@gmail.com**

PREPARATION OF MANUSCRIPT (ABSTRACT & FULL PAPER)

The entire manuscript shall be prepared as per the guidelines below -

Paper Size	: A 4
Printing	: One Side
Font Style	: Times New Roman
Font Size	: Title – 14, Author(s) Name(s) – 10 Italics, Headings – 12 Bold, Sub-headings – 12, Body - 12
Spacing	: 1.5
Margins	: 1 inch on all 4 sides

Referencing is mandatory for research papers and shall be as per APA style of formatting (Ref. www.apa.org).

PRESENTATION OF FULL PAPER

It is mandatory that at least one of the authors attend the conference in person and presents the paper. In case of M.Phil./ Ph.D. research in progress, the presentation shall be based on their research work as on date. In such cases, the rough draft of the research in progress is to be brought.

AWARDS & RECOGNITION

All participants will receive a certificate of participation. Best three research papers will be awarded with certificates of achievement and cash prizes. Selected research papers will be published in the proceedings and in a reputed journal with ISSN and impact factor. The conference organizers shall hold the first right to publication of all the selected papers.

'Research in progress' of M.Phil./ Ph.D. research works are eligible for the award of most contributing research work and a certificate of contribution will be awarded. This forum shall also add value to the research in progress of the scholar.

IMPORTANT DATES

Last date for the submission of abstract	25 th December 2018
Intimation of accepted abstracts	25 th December 2018
Last date for the submission of full paper	25 th February 2019
Intimation of accepted full papers	25 th February 2019
Last date for the payment of registration fee	5 th March 2019
Conference	15 th March 2019

Registration fee includes a conference kit, conference proceedings, refreshments and working lunch on the day of the conference.

PAYMENT OF REGISTRATION FEE

1. By DD: To be drawn in favor of "HILLGROVE RESEARCH PVT LTD" payable at Coimbatore.
2. By Internet Banking : "HILLGROVE RESEARCH PVT LTD", State Bank of India, Narasimanaickenpalayam Branch, A/c No. 35495376048, IFSC - SBIN0008155

ABOUT THE CONFERENCE ORGANIZERS

CSI College of Engineering

The CSI College of Engineering is approved by AICTE, New Delhi and the Government of Tamil Nadu. The college is affiliated to Anna University, Chennai. This college seeks to impart value based Technical Education to its students in order to meet the growing needs of such Technocrats and Entrepreneurs required in industries and business establishments. The college is a self-financing institution, offering degree courses at graduate and postgraduate level in different disciplines of Engineering Sciences. This college was founded by the Church of South India, Coimbatore Diocesan Council which is a pioneer in running educational institutions, from pre-primary to post matriculation and post-graduate levels, all known for their academic standards and discipline.

HILLGROVE Research Pvt. Ltd.

HILLGROVE Research Pvt. Ltd. was incorporated with the long-term vision of its founders to contribute and promote research in the areas of Agriculture, Engineering, Science and Technology, Business and Management, and Innovation among others. To achieve its aim, the company fosters advocacy programs, capacity building workshops, training, technical education, rural entrepreneurship and literacy. For more details please visit our web site – www.hillgroveresearch.com.

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CONFERENCE REGISTRATION

It is mandatory for every author to register along with the applicable registration fee. The registration fee for various categories of contributors is furnished below:

Participant Category	INR
Graduate Students	500
Post Graduate Students	700
Research Scholars (M.Phil./ Ph.D.)	1200
Academicians	1500
Industry Practitioners	1500

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