



Connecting Thinkers. . .

Editor's Message



In the month of March, as semesters and courses wrap up and we move towards the end-term examinations, it is good time to reflect on systemic issues that impact education and areas of future focus like the adoption of formative assessment solutions. Increasing importance on learning outcomes bring the spotlight once again on the dilemma of choosing the right assessment solution. The 'Generation Y' or 'Millennials' are those who fill a large part of our classrooms and are often typified as those who are "restless, seek immediate results and rewards, and live for today." Besides, with real time distractions like social media and consequent decreasing attention and retention spans learning and outcome processes need to be continuously reassessed. Thus the cookie-cutter approach of testing basic recall and using only single classroom-based examination at the end of the academic term is on its way out. We are increasingly feeling the need for formative assessments which not just give the learner a personalised feel of outcomes but are also primarily designed to analyse competencies and test the learners' progress alongside curriculum delivery. Assessments solutions should ensure that learning makes an impact. So the trend is to insist on multiple exams which assess the understanding of a student's subject knowledge and concepts through presentations, case study discussions and on-the-job learning projects. The point to be reiterated is that it is the students' understanding that needs to be evaluated and not his/her capacity for rote learning.

Another point that cannot be missed is the importance of vernacular learning. Just recently Google announced support to seven Indian languages through Google Translate. Thus teaching or testing anything via one language alone is on the decline. The World Development Report 2018 published by the World Bank, in a first, focused solely on Education and it had pointed out that in 2019 India will be marching towards becoming a 'knowledge economy'. In tune with the trends forecasted thus Institutions and teachers must familiarize themselves with 21st Century competencies and skills and new teaching-learning pedagogies.

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GUIDE'S COLUMN

Biosensor for Cancer Detection

For detecting cancer monoclonal antibodies, aptamers and antigens are used to bind micro Ribonucleic acids (miRNAs) corresponding single stranded Deoxyribonucleic acid (ssDNA). A biosensor is predominantly considered as an analytical device, used for the detection of an analyte that combines a biological component with a physico-chemical detector. Biosensors with biomarkers containing Deoxyribo Nucleic Acid (DNA) or antigen-antibody which identify DNA strands or specific antigen in blood sample of tissues.

Nowadays, there is an increasing interest in developing cancer biosensors as they show superior analytical performance and real-time measurement. Further with recent advances in molecular biology and bioengineering, biosensors diagnosis of cancer has taken a new direction. With ever increasing list of biomarkers associated with various types of cancer and innovation in bioengineering, the future for diagnosis of cancer seems promising. Initial screening of cancer prevents future human loses. It is motivating and interesting to design and fabricate the biosensor to identify the cancer cells in its initial stage of occurrence.

By using existing resources tools of open source and simulators, researchers are now capable to design, model as well as to simulate the biosensors for performance evaluation before fabrication. The application of mathematical knowledge and modeling into biosensor field give a vision on its design. The extensive literature review is done on different types of nanobiosensors and analysing their characteristics to detect cancer. The main focus of this current research work is to establish mathematical model biomarker, biosensor and performance analysis of nanobiosensor for cancer detection to help the society from ever increasing cancer. Now a lot facility are available for the research work to continue in designing low cost effective and more reliable biosensors designed using VLSI technologies.

Dr. P. V. Rao

Research Guide at JAIN (Deemed-to-be University)

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Winding Road towards My Accomplishment- A Doctoral Degree

My interest in electrical engineering blossomed during my high school years. As technology had begun to make an impact on the lives of people in India engineering with Electrical and Electronics as my major was the first choice for my undergraduate studies. Since the beginning power systems as a subject fascinated me with its power of applications and so I focused on the high voltage aspects of Electrical Engineering. Later I joined, University BDT College of Engineering as a Lecturer. During this time, I learnt much, both of a theoretical and a practical nature. This experience convinced me of the value of the profession for the modern world, the variety of areas in which knowledge of power system is valuable, and the versatility of the subject in the world of employment. So, I sought admission in JAIN University, faced the interview and got selected to pursue my Ph.D in August, 2010.

I started my Ph.D program with 14 years of teaching experience behind me and I was very excited about this new journey. However, doing a Ph.D was a lot more stressful than I had imagined, especially at the beginning of the program. I was fine with completing assignments and presentations, but unfortunately lack of leave facilities from the college and a bus journey of 6-7 hours were two big barriers for me that made it hard for me to join the class discussions on Research Methodology classes. The Ph.D course work enabled me to develop a strong relationship with my supervisor and other professors. While preparing for the exam and working on the research proposal the research journey resembled a hiking trail. When you stand at the starting point, you are not sure of what you will experience and how long it will take to finish your journey. No matter how much research you have done before, it is great to start with a fresh mind and to allow for unexpected experience.

I started collecting journals, books and other articles related to the pollution of outdoor insulators and also published articles, in few journals and presented at some conferences, which taught me how to effectively convey my thoughts and research to the community. I celebrated when my second research paper for an International unpaid Q-rated journal was accepted for publication after a long wait of 16 months. On April 4, 2018 I submitted my 129 page printed and bound manuscript with my name on it—to the JAIN University and after a long wait of 8 and half months I received good and critical comments from the reviewers. Then, I defended my thesis by presenting my research work to an audience of professors and peers on 23rd January, 2019 at School of Engineering and Technology, Jakkasandra. One of those professors appreciated my experimental research work. It was definitely a surreal moment. I am thankful to the authorities of JAIN (Deemed-to-be University) Bengaluru for providing me the platform to the doctoral degree. *Be passionate, positive, and persevere.* This is what I have learnt through my research journey. I believe being passionate about your research project is the most important thing, and that is the reason my supervisor Dr. Dixit, often encourages me to choose research topics that I am truly interested in. Apart from your passion, you also need a positive attitude to help you go through the difficult times in this long journey.

H C Mouneswarachar

Awarded Ph.D in Electrical & Electronics Engineering in 2019

Presently working as Associate Professor, University B D T College of Engineering

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An Insight into My Research Journey in JAIN

My research journey at JAIN has been successful because of God's intervention and the support of some important people. Studying at JAIN has been an eye opener to me in so many ways and a great opportunity and I would have not been able to acquire all this knowledge if I was in any other place. The research journey has pushed me towards so many achievements in my life. All my international publications would have not been done and the publishers would not have seen me to be a perfect writer applauding my papers as informative and exclusively written if it were not for my Ph.D journey. In fact, my promotion also became easy due to this journey of knowledge. What I have acquired cannot be compared to any other achievement in my life, the types of conferences that I have attended, the seminars, workshops and presentations made—all these experiences cannot be got anywhere else. JAIN gave me the exposure to such an amazing range of experts. The JAIN Ph.D Co-ordinators are wonderful and my this research journey has changed my entire life and my way of thinking. My dreams and plans have been achieved and my future now depends on how I take this journey forward. I am being celebrated today as 'Dr.' because of this research journey and in my name I will project the image of JAIN to the whole world. I sincerely appreciate all the faculty members of the Ph.D Programme at JAIN for their knowledge and commitment to propel students like me to achieve my dreams. Thank you Sir and Madam.

Nwigbo Nusua Stella
Awarded Ph.D in Computer Science in 2019
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My Ph.D Journey

Ph.D journey can be described as a ride on the biggest rollercoaster where you are scared to sit but equally excited to get on the ride. My Ph.D journey was more likely the same. It all started with a quest to do something new in the field of Education which would help in enhancing the Indian Education System. The journey can be described in four steps. The first step to decide the topic of research is equally exciting and difficult. So many thoughts cross the mind and you need to bring them together in one liner. Next step is to do a thorough Literature review. It helped to answer so many questions but brought in new questions as well. Doing Literature review is cumbersome task but it does build backdrop of the stage on which you can build your research. What seemed to be the routine part turned out to be the toughest part of the journey - 'Data Collection'. Finally, it was time to write the thesis. How to start wasn't difficult but where to put an end wasn't easy. The day I submitted my thesis seemed to me like a dream. The day I never thought would come in life. Like any other scholar even I came across times when I wanted to quit. Somehow I sailed through the big ocean and now I'm sitting on the shore relaxed with no deadlines, no nightmares. It had been a challenging but interesting journey which started with just a thought but ended up in hundreds of pages of book writing.

Gunjan Goswami
Awarded Ph.D in Management in 2019
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What felt like an End is just the Beginning!

As my long association with JAIN Group of Institutions comes to an end, I look back and nostalgia overpowers me. My research journey was a whirlwind love saga. I was elated at times and also faced days where I felt the wind was punched out of me. Like an echo cardiogram, there were many ups and downs. Every time I felt like I hit a wall, there was always a hand that picked me up, be it my guide Dr. Srividya Shivakumar, my colleagues or faculty members of CPGS. Thank God for small mercies! For those whose journey has just begun or in the process, remember that Ph.D is as much as exploring your mettle as it's about scientific research. It may seem testing at times, but the only way out is to keep going forward because giving up is not an option! You will find solace among fellow scholars and build your own environment. I made friends, discussed ideas, interacted and most importantly didn't take myself seriously. A Ph.D doesn't make you smarter than others, it is meant to humble you. The more I learnt, the more I realised how little I know. I am grateful to everyone who has been a part of my journey: my guide, my friends, my colleagues and the management of JAIN (Deemed-to-be University). What felt like an end, seems like the beginning!

Vaishnavi Gowda

Awarded Ph.D in Microbiology in 2019

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My Journey

The 29th of January, 2019 is a day I'll always look back fondly on, a day when my well cherished dream of attaining a Doctorate in the subject closest to my heart was achieved. A day when, after surmounting innumerable hurdles and angst, I finally crossed the finishing line of a marathon race I was running since childhood. I vividly remember taking the baton on the 10th August, 2012 when the foundation to build my way to a doctorate in the subject I most loved, was laid, by my selection for the Ph.D program of JAIN. The next six years went by as a blur, a mixture of sheer hard work, perseverance, understanding failures and rising above with the inherent excitement to foray into new territories of knowledge diligently by attending the innumerable workshops organised by the University in different aspects like public speaking and how to improve one's inner and outer personalities, which has always been a part throughout my life. I could have never have achieved my goal without the help, support and cooperation of the teachers and staff of JAIN University. I am also extremely grateful and thankful to my Guide who has unfailingly guided me since the day of admission and showed his faith in my abilities. He always advocated on the fact that to fulfil your desire there is only one 'mantra', called 'tapas' and no other way. The steps which I climbed to get to this award were Course work, Literature survey, publication of journals, colloquium presentation, plagiarism check of thesis, submissions and viva. It was definitely a long but extremely satisfactory journey, and I got a beautiful platform where, apart from my subject, I have learnt lessons to improve my inner and outer personalities which make me a more confident, strong and definitely a patient person.

Kumari Jayanti Banerjee

Awarded Ph.D in Physics in 2019

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Recently one of our research work published as an advance article in the prestigious **Journal of Material Chemistry A** journal from RSC publication with the journal impact factor of 9.93. The title of our research work is **“Engineering Fe-doped highly oxygenated solvothermal carbon from glucose-based eutectic system as active microcleaner and efficient carbocatalyst.”** Due to the increasing pollution and rapid Industrialisation, water quality is declined daily, and consequently, water purification is becoming challenging. Furthermore, surface water is being contaminated by synthetic dyes and pharmaceutical drugs, which is alarming from an environmental point of view. Among the wastewater treatment processes, the adsorption method has been found to be an efficient and economic process to remove dyes, pigments and pharmaceutical pollutants. However, even after the successful removal of these pollutants, there are limited cost-effective and integrated processes by which they can be degraded and the adsorbent reused. In this work, our research group has prepared highly oxygenated solvothermal carbon (STC) using green solvents. The as-synthesized STCs were applied as-

- (i) An adsorbent for the selective removal of cationic pollutants showing 3–16 fold higher capacity than that reported for hydrothermal carbon
- (ii) A novel catalyst for the degradation of dye
- (iii) Heterogeneous carbocatalyst for the reduction of nitrobenzene for sustainable catalysis.

Manohara H. M.

Ph.D Scholar in Chemistry

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This message brought to you by that manuscript you're supposed to be writing.

Launch of Certificate Course in Public Policy by the Centre for Public Policy and Governance, JAIN

The Centre for Public Policy and Governance at JAIN (Deemed-to-be University) had organised a 3 days *Certificate course on Public Policy* from 18-20 February 2019. The course involved a combination of classroom dialogues, field works and case studies. The themes covered in the course were Introducing Public Policy, Contextualising Public Policy, Public Policy in Global Context, Formulating Public Policy, Implementing Public Policy – Framework, Evaluating Public Policy, Case Studies – Field work.

The first phase of 1st Certificate Course in Public Policy was concluded on 20th February 2019. It had 33 highly motivated and enthusiastic Undergraduates of JAIN in the course with some of the best faculty and practitioners. In the next three weeks the students will work on their projects and present the same in the second week of March.

Resource Persons were:

Dr. R.S Deshpande, Agriculture Economist and Former Director, ISEC

Dr. D Jeevan Kumar, Hon. Professor, Karnataka State Rural Development and Panchayat Raj University, Gadag

Ms. Leena Wadia Chandran, Chief Consultant, Technical Secretariat, National Educational Policy

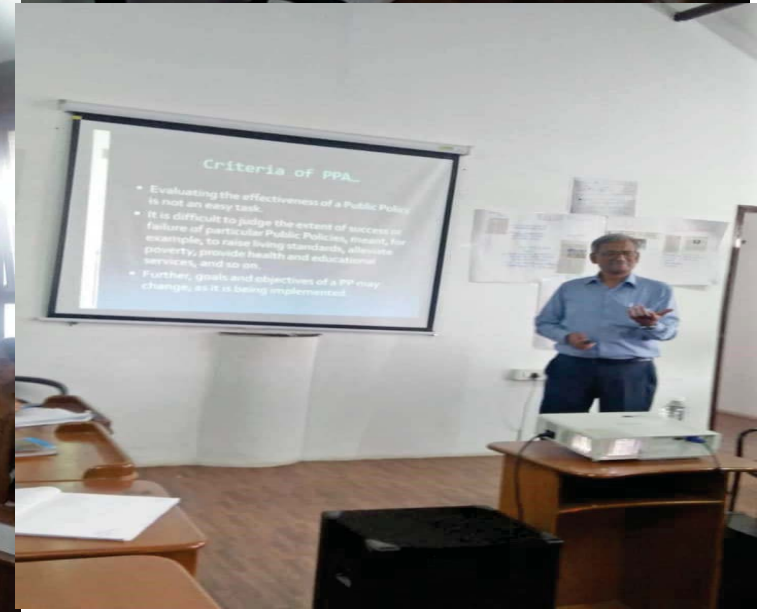
Ms. Shukla Bose, Founder, Parikrma Foundation

Dr. Sandeep Shastri, Pro-Vice Chancellor, JAIN (Deemed-to-be University)

Dr. Subhashini Muthukrishnan, Dean, School of Humanities and Social Sciences, JAIN (Deemed-to-be University)

Dr. Priyanca Mathur, Associate Professor, CERSSE, JAIN (Deemed-to-be University)





Ph.D Thesis Awarded - Till 13th February 2019

NAME	SUBJECT	TITLE OF THE THESIS
Archana Arun Bhambure	Management	Emotional Intelligence and Effective Teaching
Gunjan Goswami	Management	A Study on Accreditation of Management Faculty: A Tentative Model for B-School
H C Mouneswarachar	Electrical and Electronics Engineering	An Experimental Investigation of Critical ARC Length for Flashover of Polluted Porcelain Disc Insulators under AC Voltage
Jyothi V Divakara	Microbiology	Persistence of Common Pesticides in Leafy Vegetables
Kumari Jayanti Banerjee	Physics	Theoretical Study of Liquid Crystals in Porous Media
Nwigbo Nusua Stella	Computer Science	Impact of Export System as Tool for Efficient Teaching and Learning Process in Education System in Nigeria: A Case Study of University of Port Harcourt, Nigeria
Sanjeevkumar Kubkaddi	Electrical and Electronics Engineering	Early Detection of Knee Osteoarthritis (KOA)
Saranaz	History	Political Interventions and Cultural Interactions in Karnataka – Reference to Colonial Times
Vaishnavi Gowda U S	Microbiology	Microbial Production of Hydroxybutyrate (HB) by IN-VIVO and IN-VITRO PHB Depolymerase

Achievements and Publications

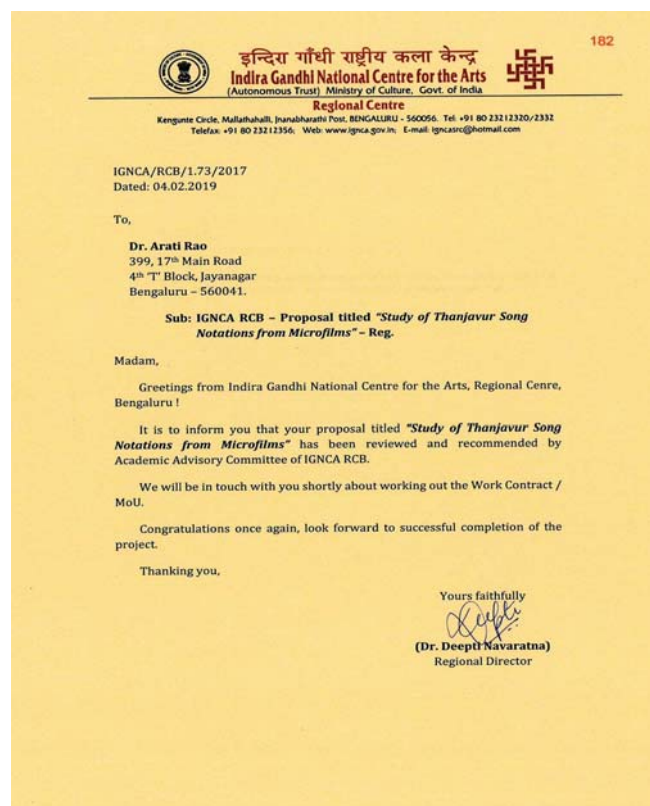
Manohara H.M., Ph.D Scholar in Chemistry, published a paper on 1st February, 2019 in **Journal of Material Chemistry A**. It's reference is : Manohara, H. M., Supratim Chakraborty, A. Kanakaraj, Debasis Ghosh, Nripat Singh, Kamallesh Prasad, D. Kalpana, S. K. Nataraja, and Dibyendu Mondal. **Engineering Fe-doped highly oxygenated solvothermal carbon from glucose-based eutectic system as active microcleaner and efficient carbocatalyst." J. Mater. Chem. A**, 2019, DOI: 10.1039/C9TA00006B.

Dr. Arati Rao, Co-ordinator, Department of Performing Arts, JAIN (Deemed-to-be University) was granted approval for her proposal titled **"Study of Thanjavur Song Notations from Microfilms"** by Indira Gandhi National Centre for the Arts, Regional Centre, Bengaluru on 4th February, 2019.

Er. V Jagannatha, Ph.D Scholar in Civil Engineering (2015 Batch) and formerly Manager, Scientist/Engineer SF ISRO pursuing research in Climate resilient urban water security in urban settlements, a lake management expert since 2004 under ADB/KUIDFC project, participated in **The Technical Committee meeting of Karangi Lake Conservation** at Mysuru on 13th February, 2019.

Anand Jaiswal and **Santosh Jaiswal**, Ph.D Scholars in Commerce were quoted in an article published by **International Tax Review** on 14th February, 2019.

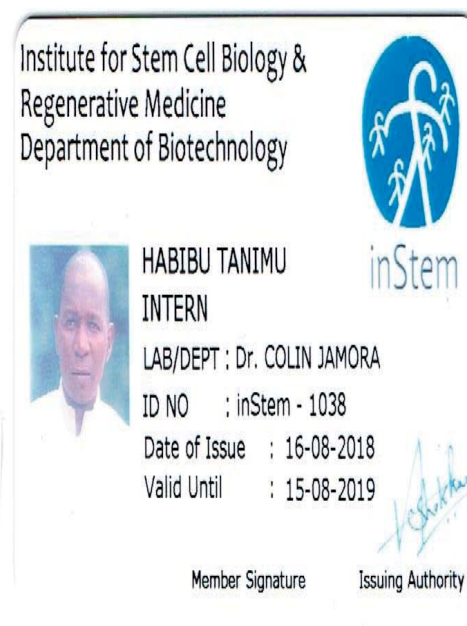
Jamuna K.V, Ph.D Scholar in Political Science had cleared CBSE-UGC NET exam conducted on July, 2018.



Sruthi Cyriac, Ph.D Scholar in Microbiology was awarded **Best Paper Presentation** at the National Conference on the theme '*Innovation in Life Sciences for Sustainable Environment*' held at CHRIST University on 20th and 21st February, 2019. She was one among the 140 papers presented, and from that 3 were awarded the prize. The prize is inclusive of certificate and trophy.

Sruthi Cyriac, Ph.D Scholar in Microbiology was given Consolation Prize at the 11th Annual KSTA Conference on the theme '*New Vistas in Science & Technology for Common Good*', held at NMKRV College for women on 1st and 2nd February, 2019. Among the 200 posters presented in Life Science Research, 8 were shortlisted and from that 3 were awarded the prize. The prize is inclusive of certificate and cash award.

Habibu Tanimu, Ph.D Scholar in Biochemistry has got an opportunity to serve as an intern at the **Institute of Stem Cell Science and Regenerative Medicine- (Instem), Bengaluru** for a period of one year, which is valid till 15th August, 2019.



Announcement

Centre for Nano and Material Sciences (CNMS) is organising an **International Conference on March 13-16th, 2019**. It has invited the eminent Scientist and Speakers from premium Institutes. The topics and the talks will be very useful for Chemistry, Physics, Materials Science and any department who is working on Nanomaterials. Faculties, as well as the young researcher, will be benefited and open a door for collaboration between Chemist/Physicist/Engineer within and outside of JAIN (Deemed-to-be University).

For more information please visit Conference website: <https://www.cnmsju.com/> and Institute website: <https://cnms.jainuniversity.ac.in/>

About Conference

Topics covered

Layered materials (*Graphene, TMDs, MXenes, h-BN, Graphyne, Phosphorene* etc.), 0D, 1D have attracted tremendous attention and led to a prosperous development in both fundamental investigations and advanced technological applications in nanoelectronics, flexible devices, solid lubricant, sustainable energy, and catalysis etc. Materials research has been significantly aided by advancements in precise controlled synthesis in large-scale homogeneous and heterogeneous growth of these materials with crystallinity control. With the recent advent, an experimental guide for various spectroscopic, microscopic and electronic characterization for the single/thick- materials, QDs and their electronic structures, homo- or heterostructures, various methods to tune their electronic/chemical properties by manipulating the surface, are crucial and the key interest for the researchers throughout the globe and we hopes to disseminate this through this conference.

The conference also covers the important topics of basic science research in different fields of chemical science.

Sponsors:

Platinum sponsor: Rs. 100,000/-

Gold sponsor: Rs. 60,000/-

Silver sponsor: Rs. 30,000/-

Last date for abstract submission: **Feburary-15-2019**

Last date for registration fee payment: **Feburary-15-2019**

Prizes: Best **03** poster prizes by **RSC**, Best **02** oral presentation from conference

- Functionalization chemistry of 2D materials
- Electrochemistry of 2D materials
- Materials for energy storage and conversion
- Catalysis/Catalytic applications of materials
- Epitaxial growth and role of growth substrate
- Field-effect transistors, spin- and valley-tronics
- Materials for sensing application
- Computational simulation
- QDs and other nanomaterials
- Medicinal Chemistry
- Green Chemistry, Biomaterials



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Alumni Speak

My Research Journey Has Just Begun

Research passion can exist before and after a Ph.D. As mentioned by Dr. Shastri in one of the Research Methods sessions, Ph.D is an official recognition of one's effort. But the actual research journey will start after Ph.D only, as we learn more concepts around the research which we explore during the Ph.D.

My Ph.D was awarded by JAIN in November 2018. After that, I was able to concentrate on research activities as part of my research journey. I have presented a paper titled "**Introspection of work from home in IT industry**" in Krupanidhi School of Management and the article was published in IARA. My paper titled "**A study of the lack of job creation in the IT industry**" was also accepted by IIM Indore. Another paper titled "**Creating more Job Opportunities in Central and State Government: An Alternate Approach**" is under review with Indian Journal of Public Administration. I am happy to have embarked on the journey of being a researcher for my lifetime and alumni of JAIN.

Dr. R. Kannamani

Awarded Ph.D in Management in November 2018

Responses to Thinklet

Nethra Ts

I am thankful for keeping me updated with the research activities and events in JAIN University. I also would like to congratulate all the scholars who have completed their Ph.D and been awarded in January 2019

Team Thinklet

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ARTICLES FOR NEXT ISSUE SHOULD BE SENT
BY **20th MARCH 2019** OF **NOT MORE THAN 250**
WORDS

PLEASE INCLUDE YOUR NAME, E-MAIL AD-
DRESS AND THE KNOWLEDGE DOMAIN OF
YOUR INTEREST.