



Connecting Thinkers...

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From the Editorial Co-ordinator's Desk

The July issue of Thinklet is being authored by a team of ten Research Guides from JAIN (Deemed-to-be University). The two broad themes of this issue are (a) challenges and opportunities faced in a predominantly on-line research environment, and (b) the scope of interdisciplinary research. We hope you enjoy reading this issue of Thinklet as much as we all have enjoyed putting it together for you.



The challenges and opportunities of E-research

With the unprecedented outbreak of Covid-19 pandemic, the daily chores and lifestyles of people have been largely impacted. In order to overcome the challenges associated, educators have resorted to various online forums for reaching out to their students. Indeed, this has provided opportunities for all of us to come across new tools and technologies to keep ourselves prepared to face the post-Covid era. The nationwide lockdown has disabled offline research in the laboratories, wherein sample collection, sample processing and result evaluation have been tremendously interrupted. However, alternative approaches have touched upon the research domain as well, where scholars have rediscovered strategies to pursue their research work. From reviewing literature to analyzing data, from compiling thesis to drafting manuscripts, from attending the webinars to presenting viva, the pandemic has helped the scholars to reinvent numerous possibilities available for the progress of their research work. In this context, the July issue of Thinklet has revisited and compiled the narratives of domain experts, faculties and scholars who have shared their views and experiences related to e-research.

Interdisciplinary research

It is strongly believed that interdisciplinary research is a catalyst for innovative research, and we all should get more involved in interdisciplinary endeavors. In pursuit of one's answers to exploring big questions and getting closer to truth, one becomes a specialist in a field of study. Part of understanding your discipline involves understanding how it relates to other disciplines. This results in several immediate benefits to your research. One can have a wider audience as the result of interdisciplinary research. For example, a philosopher who can think like an economist is more likely to produce work that economists want to read. An economist who can think like a philosopher is more likely to appeal to philosophers. The same goes with other disciplines in the humanities and social sciences. Each field of study has its own lens on the world and its own toolkit for interpreting observations. None, however, have a monopoly on which questions are most important as they relate to other disciplines. Putting your work in front of an audience which does not specialize in your discipline or field can help provide you with perspectives those within your field of study don't emphasize. The wider audience can, of course, benefit from exposure to your insights as well. One can do better explanatory and predictive work.

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Knowing the limits of your data set or methodology is key to knowing its strengths as well. One can do better normative work. For example, economists who defend markets as being efficient can benefit by looking at efficiency and economic growth against moral values such as justice, equality, and respect for liberty. Without looking across the aisle at other disciplines, ethics without economics can be empty. Economics without ethics can be blind. Interdisciplinary research inspires one to confront questions that may not otherwise occur to you. Circumstances may require that your dissertation focus on a very specialised topic. Don't let that put you in the habit of making your life's work not looking at the bigger picture.

The "big questions" after all, are what presumably got you into academia in the first place. All questions are ultimately interrelated. Asking the questions that neighbour one's discipline or simply exposing one's work to other disciplines can pay dividends in strengthening your research methods or your arguments. In this regard, the July issue of Thinklet, through a virtual panel discussion involving guides from various disciplines, has attempted to bring to light perspectives of guides and scholars of the JAIN family in understanding the importance and challenges in realising one such concept.

Coping with Lockdown: Learnings from the JAIN University Family

Dr. Guneet Inder Jit Kaur, our Guest Editor for the issue got in touch with the Management, Faculty and Administrative Staff of JAIN University, to know their thoughts, challenges faced, and professional learnings during the lockdown period. We bring their responses to you through these infographics spread throughout the newsletter.

What professional challenges did you face because of the lockdown?



Administrative Staff

Work from home, coordinating & convincing students to adopt the new system of online sessions & Examination. Management's decision of shrinking the number of staff, work has doubled, lack of data, Work allocation online, lack of internet/laptop, Inadequate communication resulting in improper understanding of the expectations and thus affecting performance.



Management

Work allocation to admin staff and other non-teaching staff, don't have internet or laptop, Inadequate communication can result in an improper understanding of the expectations and affect performance.



Faculty

Practical classes online, interaction with students as it was before, Multiple task at once but with limited Internet bandwidth, Financial, Internet Pack, work / study from home, technology support, change into the mode of teaching

An Interaction with the Guides

An interactive virtual session on (a) enriching research through an interdisciplinary perspective (IDR), and (b) challenges and opportunities for research in the e-era (REE) was held on June 15th 2020 with eminent faculty and guides of JAIN (Deemed-to-be University). Various interesting perspectives and insights on different issues pertaining to these areas were addressed for researchers to understand and move ahead in their respective areas. The guides' panel had Dr. Varalakshmi K N from the Sciences, Dr. Harold Patrick representing the Management domain, Dr. Shobha Shashikumar from the Performing Arts, and Dr. Mythili P. Rao from the Literature and Social Sciences domain. The session was moderated by one of our guest editors for this newsletter issue Dr. Arun Bhattacharyya, and the interview was conducted by two research scholars Ekalavya Baruah from Management and Karthik G. from Performing Arts domain.

These days, interdisciplinary research is starting to become a catchphrase in education, but what does 'interdisciplinary' study really mean and why is it being talked about. The panel discussed at length on its importance and challenges, and the fact that more disciplines are getting into it. It was clearly evident in the discussion that interdisciplinary research promotes learning, as scholars connect ideas and concepts across various disciplines, and in the process deepen the learning experience. It also came to light that an effective approach to interdisciplinary study enables researchers to build their own interdisciplinary pathway by choosing courses which make most sense to them, or are of interest to them.

Members of the panel talked about the inherent complexities of collaboration and co-advising and how it can lead to conflicts between disciplines. Effects of co-advising in IDR were discussed in detail where it was clear that the pros outweigh the cons, and the collaborators are able to identify areas which best needs a common approach to deal. Co-advising essentially requires a collaborative approach as different disciplines have their own competence and complexities and also their own culture and barrier issues.

The topic of technology in research was also discussed, and all panel members supported that technology can be an enabler but not the soul of research. The human touch to the learning process can never be replaced by technology, and technology does not influence the ability of a researcher to perform better, as the research process plays a more critical role than people and technology.

The cost of research is integral and is inevitable to research. Will the low cost of communication influence the cost of research? Discussion on this topic led to the understanding that the cost of research might not go down, but more emphasis has to be laid to conduct research on areas where there are issues being faced by industry, corporate, and society at large. By doing so, more parties will come forward to sponsor research, as eventually they will benefit from the results of the research outcomes. Universities should also promote and encourage research in areas where sponsorships can be gained to conduct research studies.

Data collection in the E-Era was discussed where it was evident that those disciplines where there is no alternate to physical data collection or experiments could be a challenge. Perceptions of the sample to whom the questionnaire is administered can also change during the current scenario and the outcomes of the study could be different.

As a conclusion, all members agreed that the problems could be contextualized across 6 areas ('6 As')- Availability, Accessibility, Adaptability, Affordability, Applicability, and Acceptability. Availability of data and readings is crucial to research, but it has to be accessible. Researchers will have to adapt to the changing environment around them and their research will only have meaning when the research outcomes and findings are applicable. The research projects have to be affordable and the research outcomes should be universally acceptable.

The discussion can be accessed through the following link, till 31st August 2020

<https://zoom.us/rec/share/9JEpcbDv0WxJZqvg8xDEBosCHMPIX6a80CUfrqUKzUdy065N8fdwAdvAWikGqLaR>

Interview conducted and compiled by Ekalavya Baruah, Research Scholar in Management and Karthik G, Research Scholar in Music
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How can a person be better prepared for a similar situation in the future?

Administrative Staff



Adapting, accepting the situation, strengthening physical, mental & emotional power, mental preparation

Management



Being confident, open to challenges and upgrade your existing knowledge from time to time, creating backup, providing support staff with necessary support and skill

Faculty



Being a more responsible citizen, Love humanity by heart and soul, Strong will power, mental preparation, discipline, online teaching skills, being independent.

Challenges and Opportunities for Online Research in Performing Arts

While COVID has tried to lock us down, technology in the form of the internet and its ubiquitousness in the past decade or more, has been a saving grace for the river of knowledge to keep flowing. How does this augur for online research and particularly for the Performing Arts? Here is how the answers have unfolded to me in the past two months. For those researchers in the preliminary literature review phase, the biggest challenge has been the restricted or banned access to the physical libraries, bookshops and online ordering. The researcher has been left with the choice of digital copies online. This poses a challenge as not all material would be available online, and this also needs a human mental shift to get used to extended durations of online reading. The opportunity lies in unravelling the vast collection of research material online, which otherwise the researcher would have possibly ignored.

For those in the data collection and analysis phase, the biggest challenge is in conducting interviews online. The physical or live interaction between the interviewer and the interviewee, helps build a subtle positive rapport with the interviewee which further leads to a natural uninterrupted flow of knowledge pertinent to the topic. Without this, the interviewer has to develop a different set of skills to understand deft handling of not only the interview and the interviewee, but also the technology supporting it. There is an opportunity though to improve skill sets and reduce human bias. Focused group discussions have similar challenges and opportunities. Another opportunity lies in the increasing comfort levels of artists with online modes. Thus, the distance barrier will no longer be a hindrance. This can also save time and money for the researcher, and for the interviewee, and that is an efficiency to leverage.

For research writing, some of the challenges lie in the referencing of online material. However there are effective online tools for collaboration and review, and the present times provide an chance to the research fraternity to make effective use of this more than ever! A personal example of another effective area of online collaboration is when all the Performing Arts research scholars met through an online platform facilitated by our guides and mentors. This helped us to get a broader perspective of each one's work area including the challenges and learnings. It was an unparalleled occasion, firstly because our guides coordinated the cross topic flow seamlessly, also because under normal circumstances, physical distances would have acted as barriers in getting everyone together at the same time. To summarise, Performing Arts and all other domains of research, can leverage a lot from more focused online research, and thankfully, 'the new normal' will ensure this shift.

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Innovation and Reach- Thanks to IT!

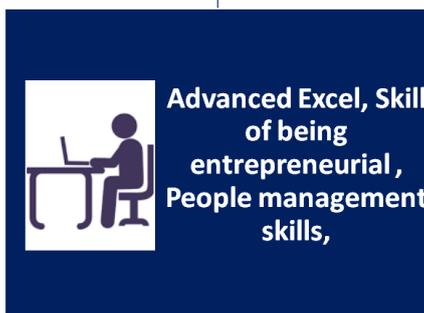
The current lockdown is a once in a lifetime experience for all of us. While some key groups such as medical professionals and sanitation workers, among others, are held in high regard across the spectrum for their unconditional support and relentless efforts, the backbone of all these efforts are the IT guys! They created the necessary infrastructure and have always ‘gone crazy’ on innovation, trying to outdo each other every time. Today, as an academician and a researcher, it is IT that is driving our work, allowing us to get ahead of ourselves.

In today’s scenario, the idea of conducting online sessions is the ‘new normal’ which we all have adopted and adapted to. They may go by various names – Webinars, Online Faculty Development Programmes, Chattiner, Lecture Series, Virtual Panel Discussions, Online Interactive Sessions, E-quiz, Online Workshops, etc, but they all serve the same purpose: tremendous amount of knowledge sharing, by breaking geographical and cost barriers. This has become an accepted fact and is turning out to be a safe and user-friendly option. Every institution is now working on new ideas, as per the current situation, whether it is to continue working as they used to in a face-to-face mode, or to introduce newer ways of working and connecting with each other. In educational institutions especially, the management is encouraging faculty members, administrative staff, research scholars, and students, to reach across and beyond the country, for resources and audience, at minimum cost. A million thanks to the unsung heroes from the IT realm across the world, for their contributions in making all this possible, by working and innovating relentlessly – and delivering it to all of us, globally!

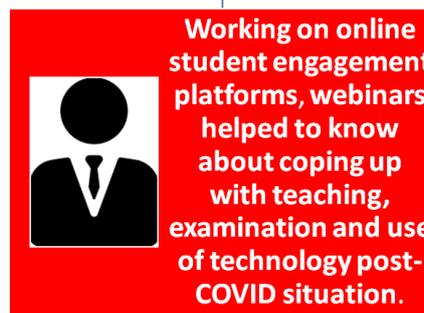
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Administrative Staff



Management



Faculty

From Desk to Journal: The Journey of My Research Paper

The best comment/s one can receive from an editor or editorial office of a scientific journal is the acceptance letter of the submitted research article. Like a cherry on the cake, though rarely, you might even receive a thank you note from the editor for submitting the work to that journal, if your results are extremely impactful. Every researcher spends a huge amount of time in data collection, interpretation and manuscript formatting. Once the manuscript is submitted to a journal, the editor and team of reviewers evaluate the article based on content, future research it would inspire, practicality of the solution, and if an application is mentioned, the rationality of the materials, methods and protocols for feasibility.

General comments such as “*language needs substantial improvement*” are always part of a reviewer’s comment and they may also address general formatting, figure quality, the works cited, etc. Even though some of these may sound mundane, one should revise accordingly. Being a materials scientist and a “pseudo”-engineer, I receive comments on raw materials and quality of the end product. Therefore, whenever I prepare a manuscript, I emphasise on understanding the behaviour of materials/product. From my experience, elaborating on the materials with simple and visually attractive schematics always help. There could also be other technical comments where the reviewers express their disapproval or apprehension about specific findings. One such comment I received was “*the solvent treatment can induce swelling of polyamide layer. Discussing rejection in terms of Donnan exclusion ignore this. You have to account for the swelling.*” Receiving comments of this nature, require an extensive ‘re-doing’ of the literature survey or use advanced characterisation tools to address them.

When we are working on completely new topics with few references in literature, we are both at an advantage and disadvantage to make the case. We may receive an outright rejection stating “impractical, irrelevant, out of scope” or with some comment of “sceptical nuances”. As a researcher we have to be prepared for such comments. On the other hand, we may receive extraordinarily fulfilling comments about the work. To share my experience working on forward osmosis, we were exploring a non-traditional approach to the process and received several outright rejections from high impact journals to topic specific journals. However, for every rejection we made sure to collect specific comments for rejection from the editor/editorial office. Then we started work on each comment and amended the experimental protocols to generate new sets of data. In this way, we prepared answers to all possible technical queries before the next submission. As we emphasised on the overall benefits of the process, doubts on the specific steps arose, and subsequently on the integration of the steps. Every comment was carefully evaluated and considered for implementation during revision along with simultaneous generation of new data. By doing this, we were able convince the expert reviewer about the importance of our study. Finally, we were elated to receive comments from the editor with special mention of the reviewer’s comment “*this nice piece of work should not be lost in the sea of literature*”.

A researcher should be open-minded to reviewers’ comments, suggestions and critique. It is also important to keep in mind that revisions always improve the quality of the manuscript, thus improving the ability of the article to communicate to the research community. In my opinion there are 3-main factors that a researcher should pay attention to; scientific integrity, rationality in work design and effective communication to convince the editor, the expert reviewers, and the scientific community at large.

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What unique changes did lockdown bring in your life?

Adapting ourselves for work from home, health conscious, Learnt to enjoy the moment, strength of being patient, lockdown was a breath of fresh air, mental peace, Coping up with time & Uncertainty of events



Administrative Staff

Made us self reliant, more tech savvy and online corrections of soft copy; explore ways and means to improve my technology skills, it has brought out a paradigm shift in thinking and working



Management

Improvement in health, ready for any changes, Active at home, Face to face communication missing leading to misunderstanding and miscommunication, work from home, spent time with family, saved on the travel, exercise, and long working hours



Faculty

Lockdown - The Flip Side

Research has always been associated with unexpected hurdles and the perseverance to achieve the goal. So, the lockdown comes as no surprise to a life science researcher, especially when the cause is a microbe!

Hailing from a Microbiology background, this phase of quarantine has had a profound impact on me with respect to research. We are constantly made aware (on news and social media, among other outlets) about how harmful a microbe can be to life in general; it is especially difficult for a microbiologist, who not only knows the cause of the pandemic, but can also shed light on the other key questions—the why, the how, the when, and by which. As an active researcher, there is a constant worry about my work and the centre of research i.e., my organism: is it in good and viable condition? Will I be able to continue my research? How behind-the-schedule am I or will I be in the research perspective? But I think that is a question on every life science researcher's mind at this stage of the crisis, especially those who are in the experimentation phase of their research career. This leads to the next question: do we all have plan-B in place?

When it comes to research, it always has two sides—the dry and the wet. So, when the lab work stalled, I turned to the online world. For me, it has been an enriching experience as I had a chance to do a thorough literature search and read extensively on the pros and cons of the decisions made in the experiments, to explore the alternatives, and to plan a better way forward for the active stage of research. My professional life as a *research lead* has inculcated and trained me to implement research skills to search, review, and develop content. The online mode of research has been quite fascinating as it has given a chance to learn soft skills and information on specific matters from scientists (through webinars), learn new software (albeit analytical!), and search deep in literature to validate the work done and work yet-to-be-done. With this focused learning, I am awaiting the next phase of my research in this cautious and uncertain world.

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The Odds of Interdisciplinary Research– Future Norm in Management Science

Recently my focus went to an article that appeared in an academic journal in Management discipline titled “Why every business professor should write practitioner focused articles”. The central argument of the article was that if business professors and researchers focus in communicating only to academic peers by publishing exclusively in academic journals and don’t write practitioner focused articles, then it may soon lead to the demise of business schools as they become irrelevant. Whether one finds this proposition completely acceptable or not is not very important, as long as one finds the spirit of the argument as valid and relevant. This validity and relevance has its basis in accepting the fact that management and organisation studies is an applied science where the researchers’ concern for methodological rigour has to be counterbalanced with the managers’ requirement for application of the knowledge thus produced: whether instrumental, conceptual or symbolic (Pelz, 1978).

One may find this new call for researchers writing exclusively for practitioners too radical an idea. However, an intermediate position of advocating interdisciplinary research has found acceptability to such an extent that an article in British Journal of Management noted in 1997 that “hardly a research initiative, call for papers, management textbook or departmental prospectus appears without making some claim to support or offer an interdisciplinary research”. This early realisation for the need for interdisciplinary research is however yet to be matched by realising its full potential through action on the ground. There could be many factors at work here and clearly some are institutional in nature. For instance, an article in ‘Research Policy’ in 2012 provides empirical evidence on how the use of journal rankings disadvantages interdisciplinary research evaluations in the context of management research. Another contributing factor as noted by Mcleod (2018) among others is that cognitive barriers between disciplines cause difficulties in interdisciplinary research.

This may be a good time to revisit the title and examine the demands and expectations from future research endeavours. What is the likelihood of researchers in Management and Organisation Science engaging in research that can be categorised as interdisciplinary? Interdisciplinary here could mean either drawing theories from multiple well established knowledge traditions like sociology, economics and psychology or employing theories from multiple functional areas within Management such as Marketing, Finance and Operations.

Take the case of risk management as an example. This is an area identified within the broad area of decision making where contributions from various disciplines are acknowledged. There are theories from mathematics to psychology to sociology employed independently in understanding the phenomenon of risk with proven internal validity. However the new challenges faced by businesses across the world, in the context of post-Covid world, calls for greater external validity to the risk-management models. The traditional trade-off between rigour and relevance is likely to favour relevance in this context. Though it is difficult to do interdisciplinary research given the cognitive and institutional challenges and the demands of rigour, the need for actionable models are likely to be so high that the odds that researchers engage in interdisciplinary research will presumably be high.

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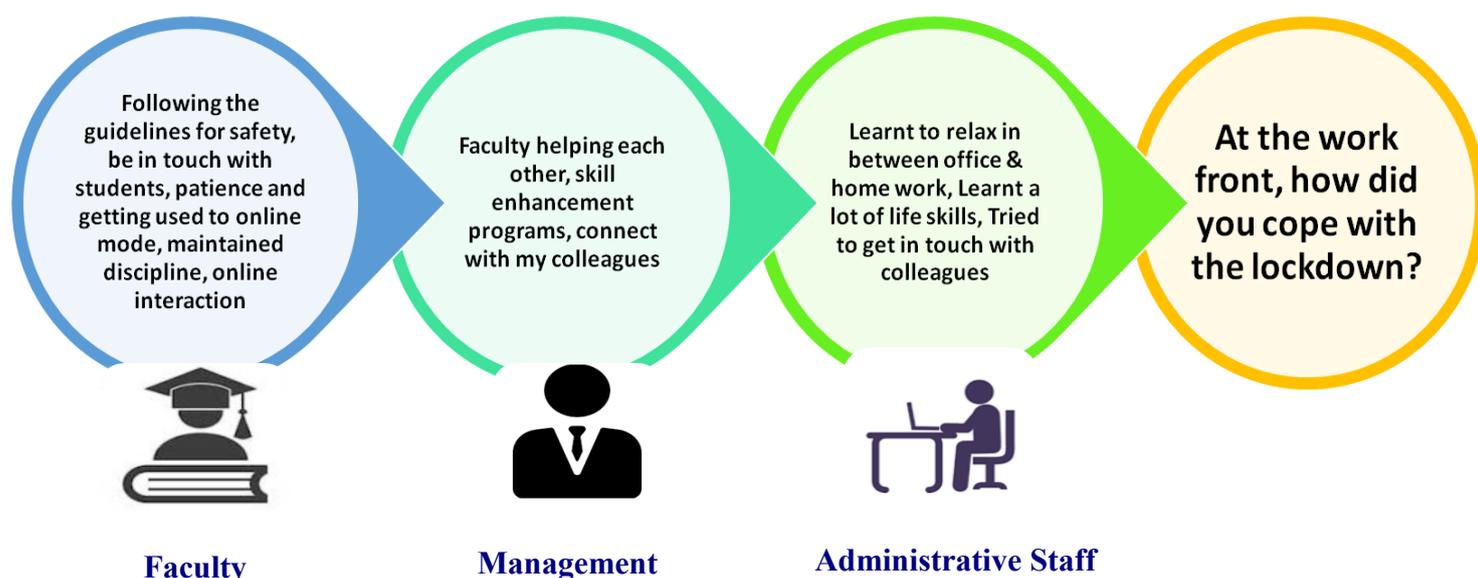
Interdisciplinary Studies: Exploring Opportunities

Academics till 1970s had been very touchy about the discipline crossovers and maintained a breach -proof wall. These walls were reinforced time and again by defining boundaries of the disciplines, and these definitions served to make the “lines of control” more and more rigid. Each of the disciplines was nothing short of being a “sect” with the followers of the sects fighting for their belief in the ontological and epistemological truths associated with their way of seeing and experiencing the world.

However, with the arrival of “critical theories” in the 1970s that inaugurated new modes of academic engagements called “Cultural Studies,” the academic establishments were forced to dismantle the water-tight walls that separated disciplines. As a consequence, the world of research saw daring readings, as for example a mathematical reading of triangles in Robert Frost’s poetry.

The discipline crossovers, or put in other words, interdisciplinary studies have today become the norm. But this, for the guide and the scholar as well, presents both a challenge and an opportunity. It is a challenge because it demands a more or less equal amount of expertise in more than one discipline, forcing us to move out of our “comfort zone”. It presents an opportunity for such of them who have always had a “broad” understanding (perhaps instinctively?) of what constitutes academic research. Interdisciplinary studies accommodate the synthesis of knowledge available in many disciplines and enable the expression of unique responses assisting in the development of crucial transferable skills. These skills, such as critical thinking, communication and analysis are important and continually developing at all stages of life.

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A Discussion on Changing Landscape of Research

To discuss on the theme of Changing Landscape of Research, we brought in four panelists- Dr. Shankar, a consultant at the Indian Institute of Science (IISc), Dr. Pethuraj, an Infrastructure Architect at IBM, Bengaluru, Dr. Rajesh, the CEO of Pustaka, and Ms. Srinidhi, a research scholar from JAIN University, also senior consultant at Capgemini. The discussion was moderated by one of the guests editors of this newsletter issue Dr. Suchithra R.

The first speaker was Dr. Shankar who spoke about how the Machine Learning (ML) and learning algorithms are extensively used in making machines. He gave detailed explanation about how the field of video analytics can utilise this opportunity. With an example of surveillance cameras that are used in public places being the source of continuous stream of data, he elaborated on how the camera device itself can be thought of as an intelligent device sending only required bits of videos instead of sending a live stream, which demands high storage systems, turning out to be a disadvantage .

Dr. Pethuraj spoke about how digital technologies may help in containing the COVID-19. He elucidated how our IT fraternity is working towards making the digital platforms ready for facing the pandemic situations. IOT applications (Internet of Things) and Edge computing are the foremost technologies that can help in preparing the prevailing situation. His thoughts on the future of research were in making the IOT devices a bio-sensor which can be fitted-in to detect the diseases. He also shared insights on how the remote diagnostics, remote monitoring can help this situation. Insights on running the artificial intelligence setup on the Edge computing in making the real-time alerts was thought provoking.

The idea for Service-Oriented Architecture (SOA) was brought-in by Dr. Rajesh who shared his thoughts of how SOA can be modified into micro-services. These micro-services are scalable with the use of the cloud. He identified the scope of research in this field and elaborated on how adding Meta-data to the micro-services can improve the application. Also, his thoughts on how research work can be carried on service discovery with respect to micro-services were exemplary. He briefly mentioned some issues regarding data security with the cloud platform, the trust factor with securing the data in cloud, and stressed on the usage of trusted cloud technologies.

Srinidhi, a research scholar from JAIN University spoke on data analytics approach as the growing area which has entered the common man's life. She expressed how sentiment analysis with the social media data can be integrated to bring out applied research. Her views circled around how the systems can be made intelligent with IOT and sentiment data, especially for the field of Psychology, in helping to automatically read the mood the user. She concluded her thoughts by adding how the area of social media branding and marketing has taken advantage of applied research in this area, and that there is immense scope of the further research in these domains.

It was an extremely exciting time to spend with the researchers who were brimming with ideas and the future possibilities of research in the domains of Computer Science and Information Technology.

The discussion video can be accessed through the following link:

<https://drive.google.com/file/d/1r2Wn5vVMutlpcVDvBDj1wwh6cOC59LRp/view?usp=drivesdk>

*Discussion conducted and compiled by our Guest Editor Dr. Suchithra R.
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Responding to the Lockdown: Keeping the Research Programme on Track

Reflections by Dr. Sandeep Shastri
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Ever since the lockdown came into force on account of COVID-19, all of us have had to adapt, adjust and acclimatize to the new environment. The research program at JAIN has also had to relate to the new reality of each of us being confined to our homes for close to three months now. As I sit down to reflect on the changes we have introduced and the reforms we have brought in our processes, the changes have been multi-track and thanks to the editorial team of the July issue of THINKLET, I have this opportunity to document the same.

When the lockdown set in by the middle of March, the course work for the Ph.D and M.Phil programme of 2019 had more or less been completed. The few sessions that were still left were completed using the online platforms. The major concern was whether we could conduct the end-term course work examinations which were scheduled in mid-April 2020. It was decided to postpone the examinations to July 2020, yet not delay the start of Term II for those researchers who were still in course work. Research scholars suggested that we have online classes to take forward the 'learnings' that were seen in the first term. Two sessions of Research Methodology per week were held for several weeks. In a few subjects, Core paper sessions were also conducted.

As Term II commenced, the day long workshops on Advanced Research Methodology commenced online and by the end of June 2020 all sessions were completed. Resource persons adjusted their styles and approaches for the online sessions. Researchers were also plugged into the online workshops. A range of innovative techniques were used giving expression to the creativity of both the faculty as well as the doctoral scholars. Simultaneously as part of the Ph.D Programme, a fortnightly webinar series was started and during May and June four such webinars were held. In each, more than half the doctoral students at the University actively participated. These Webinars often involved Panel discussion among experts, doctoral scholars as well as our research guides.

As researchers could not meet their guides face to face, the guides were encouraged to keep in touch with their doctoral students using online platforms. Experience has shown that there was greater interaction between guides and their scholars during the lockdown. JAIN made a special effort to reach out to its faculty doing their Ph.D. The Chancellor of the University, Dr Chenraj Roychand Sir addressed all the JAIN faculty pursuing their doctoral research and motivated them to use the lockdown to fast track their Ph.D work. Timelines for each researcher was prepared and the same was monitored by the guide on a regular basis to ensure that they submit their thesis maintaining high quality standards and fulfilling all norms prescribed. More than thirty of them will submit their doctoral thesis by August 2020.

Another innovation that we have introduced since we entered the lockdown was to hold the Ph.D viva-voce examinations online. We ensured that the viva-voce was advertised on the University website and whoever wished to attend the viva-voce online was invited. Till the end of June we have conducted 46 Ph.D viva-voce examinations online. We noticed that the attendance in such meetings was much higher on the online mode than in the face-to-face mode. The discussion was also of superior quality and the recording of the same could be accessed by those who could not attend the online session. It also allowed the University to ensure the presence of both the external examiners. In the offline sessions we used to only call the Karnataka based examiner, but now examiners joined us from across the world. We even had external examiners from Australia and Singapore joining us on the Zoom platform. We have also

conducted the Pre-Submission Colloquium of 17 Ph.D students online. This is a mandatory requirement for all Ph.D students when their final draft of the thesis is ready, prior to final submission.

Finally, the University was able to conduct seven Synopsis presentations of doctoral students. This and presentation marks the end of Course Work and involves a comprehensive Review of Literature and Methodology proposed to be used for the study. An external expert is invited as part of the Committee to review the presentation. The successful completion of this presentation marks the formal confirmation of registration.

The lockdown caused by the Pandemic has allowed us to experiment with innovation and continue on our research journey. The lockdown may have caused disruptions, yet we ensured that our guides and researchers could continue to pursue their research work within the constraints of the situation.

Possibilities of E-Research: Perspectives from Engineering

I feel happy that I am able to reach you all through your mailbox today, even though we have limited ourselves to gather and share our ideas and thoughts during these hard times minding social distance. None of us imagined this life and working style just few months back. But time and nature has taught us to overcome any situation ahead to convert all our challenges to opportunities. Many of us have learnt the better use of technology and experiment with new paradigms that we had never thought about. This is a new dimension of research that we all pursue these days to bring out the best, with the limited resources. Now let us think E-research in engineering and the possibilities of this scenario.

Engineering is the art of applying scientific principles and mathematical facts to design, and developing multiple facets of technology, while research is a continuous thought process to increase knowledge by planning, organising, collecting, experimenting and analysing data that demands creativity besides novelty. Hence, engineering research is a forum that emphasises the continual improvements in the theoretical and practical aspects. Engineering principles evolved as our civilization developed, and emerged extensively in the early nineteenth century after the development of mathematical tools and their application in military fortifications. From then till the late 1900s, research in engineering has crossed different boundaries mutually benefited by the revolutions across the globe.

It has further evolved to a new era in the 2000s owing to the developments in the field of Internet and Computer Engineering. This new dimension is known as E-Research and has almost simplified the complex flow of the adventurous journey via modern tools, information, technology and media. Contradictory to the traditional research, this new age research supports diversified skills, distributed research team from different locations, large-scale computation, and shared instruments. Innovative ideas evolved at different geometrical latitudes and longitudes are identified, channelised, developed, improved and even commercialised by the extensive availability of websites, online databases, e-books, audio and visual files. The present situation has changed the three essentials for living to four essentials: food, clothing, shelter and the internet. Research ideas and methods have exponentially grown in the field of engineering and these modern tools aid to identify alternate solutions to the evolving challenges. The positive aspect of the present situation is the quality time available to spend on quality research by using e-sources. The usage and spread of E-research has increased in today's context and it promises a better tomorrow in the field of engineering.

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The Role of ‘Thinking’ in Research: A Psychological Perspective

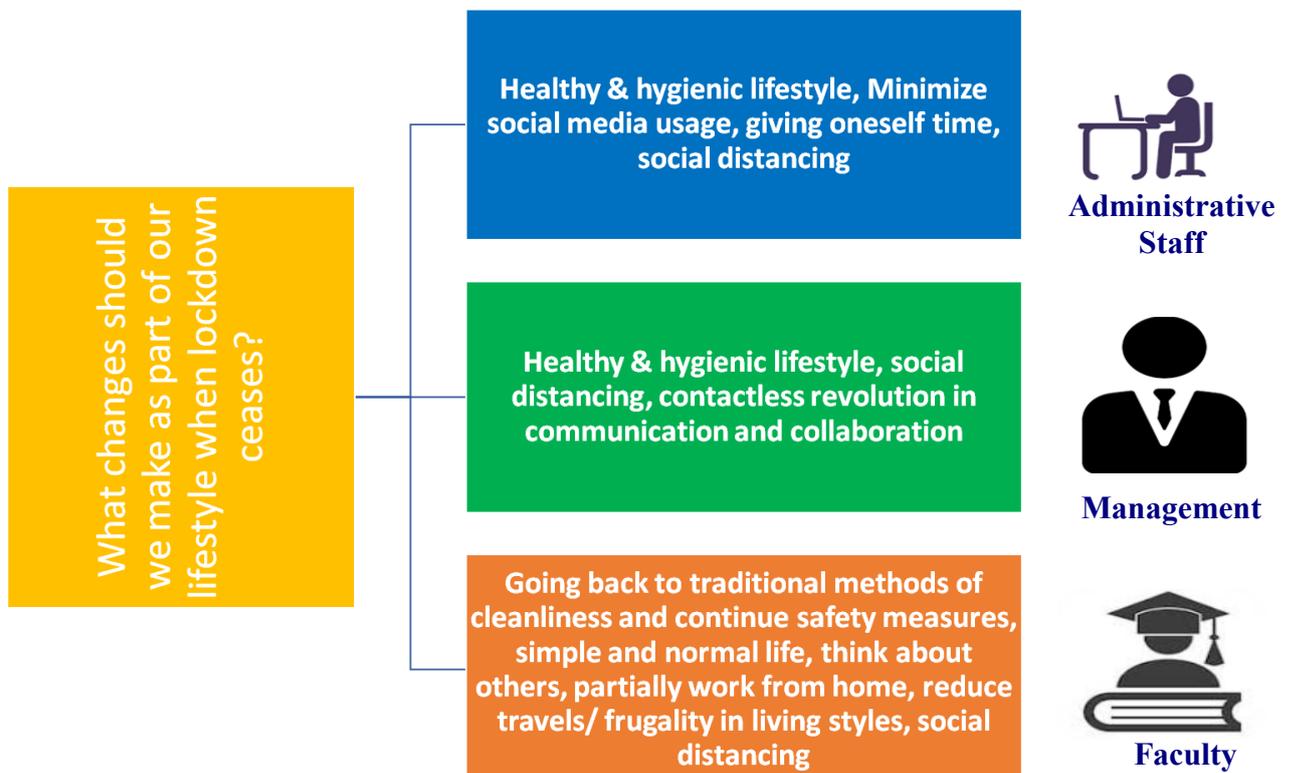
To define and organise experiences, learn, reflect, plan and create – this is the role ‘thinking’ plays in our lives. But what is more important is that thinking should not be meaningless and should not have a negative impact! As an important mental process, thus thinking plays a significant role when we undertake research. So this highlights the need to be mindful about our thinking when doing research. Mindful thinking involves being totally present in the moment in an unbiased manner.

In research, it is essential not to make quick assumptions or fall prey to what seems obvious instead to ask multiple “what-if” questions. To avoid bias in thinking, it is essential to ask structured “What if” questions such as: What if the reverse is true, What if something else is the cause, What if the variables under study do not have an impact on each other? These open ended questions channelise our thinking in a systematic manner and help us in critical and creative thinking, which is the fuel for research.

Thus, in research ‘thinking’ should be an active process in exploration; and to yield good results it must sift the grain from the chaff. Hence, non-productive, unstructured and negative thinking should be avoided.

*Praveena S., Research Scholar in Psychology
and Dr. Guneet Inder Jit Kaur, Research Guide and Head
Post Graduate Dept.of Psychology*

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Achievements and Publications

- **Dr. Kumudini Belur Satyan**, Associate Professor, Dept. of Biotechnology, published a manuscript titled '*Enhancement of Salinity Stress Tolerance and Plant Growth in Finger Millet using Fluorescent Pseudomonads*' published by *Rhizosphere Journal*. Manuscript Number: RHISPH_2020_81R2
- **Mithilesh Kumar Singh**, Ph.D Scholar in Mass Communication, published a paper in Scopus indexed journal titled "*Impact of Covid-19 Pandemic on Working Culture: An Exploratory Research Among Information Technology (IT) Professionals in Bengaluru, Karnataka (India)*" in the *Journal of Xi'an University of Architecture & Technology*. ISSN No: 1006-7930, Volume XII, Issue V, 2020 DOI: <https://doi.org/10.37896/JXAT12.05/1734>
- **Jamuna KV**, Ph.D Scholar in Political Science, co-published a paper with Dr. Reetika Syal, Assistant Professor, CERSSE, JAIN titled '*A Social Welfare Policy of Government of Karnataka; A Study on Indira Canteen in Bangalore City*' in the *Alochana Chakra UGC Care Group 1 Journal* ISSN NO-2231-3990, Volume IX, issue V, May 2020.
- **Krishna Murari**, Ph.D Scholar in Management, published his second collection of poetry titled '*पहले प्यार का पहला दिन*' which was published by *Page and Turner, USA* in May 2020.
- **Samhita K.**, Ph.D Scholar in Psychology, earned a *Diploma in Mindfulness* from *The Kew Training Academy*. She also obtained a certificate for the course entitled '*Mindfulness in Mental Health and Prison Settings*' offered by *The Open University, U.K.*
- **Papiya Bhattacharya**, Ph.D Scholar in Public Policy, published online articles titled '*Tagore's poetry plays with sound like magic. Did you ever notice?*' in *Bengaluru Review*. This can be accessed at <https://bengalureview.com/tagores-poetry-plays-with-sound-like-magic-did-you-ever-notice> and '*Post modeling scenarios say lockdown is necessary to defeat Covid infection*' in the *Aster Medical Journal*. This can be accessed at <https://www.theamj.org/covid-19/post-modeling-scenarios-say-lockdown-is-necessary-to-defeat-covid-infection>.
- **Kaushal Kumar Patel**, Ph.D Research Scholar in Hindi, published a paper titled '*दलित राजनीति का उभार और शिवमूर्ति का कथा साहित्य विशेष सन्दर्भ, ' तर्पण '*' in Peer Reviewed UGC Care Journal- *Adhigam Journal* - ISSN No.- 2394-773X, vol.- 6, April 2020, impact factor - 5.60
- **Kakali Roy Chowdhury**, Ph.D Scholar in Cultural Studies published a paper titled '*Anvikshiki in Arthashastra: Kautilyan Perspective of Economy and Philosophy*' in the *International Journal of Sanskrit Research*, VOL. 6, ISSUE 2, PART C ISSN: 2394-7519 and '*Kautilyan Mandala Theory: International Relationship?*' in the '*International Research Journal of Management Sociology & Humanities*' Vol 11 Issue 6, ISSN 2277 – 9809 (Online) 2348–9359 (Print).
- **S. Sivaram**, Ph.D Scholar in Cultural Studies presented a paper on June 18, 2020 titled '*Role of Ancient Wisdom in the "New Normal": Compelling Need for a Pragmatic Reappraisal of Vedic Literature*' at the two-day International Webinar on Topic '*Post Pandemic Global Scenario and The New Normal - a Philosophical, Historical & Political Perceptive*' organised by *Santhigiri Institute of Culture and Human Development and Indian Council of Philosophical Research*. The two-day webinar was held on Google Meet and was live telecasted on YouTube and Facebook. He also submitted an abstract titled '*Revisiting the Significance of Virtue Ethics in Research: Gleanings from Select Hindu Scriptures*' which has been accepted for presentation at the American Philosophical Association Conference to be held in NY, USA in January 2021. The theme of the conference is *Ethical Discourses: East and West*.

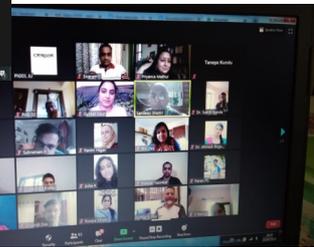
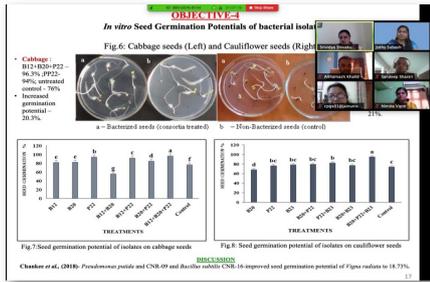
Alumni Achievements

- **Dr. Piyush Kumar Pareek**, Alumnus in Computer Science Engineering, published a Joint Patent. Patent Name: '*Secured Medical Data Transmission and a Method Thereof.*' Patent Application Number: 202041020325. Date of filing of Application: 14/05/2020. Patent published date: 05/06/2020.
- **Dr. Suja R. Nair**, Ph.D alumnus in Management was appointed as an 'Editorial Board Member' of the '*Asia-pacific Journal of Institutional Efficiency*', published by *Emerald Tree Publishing*.

Glimpses of Research and Faculty Development Activities Online

JAIN LITERATURE REVIEW

S.No.	AUTHOR	TITLE	FINDINGS
1	Parvati, P. and Kishanraj, S. S. (2019)	Isolation and Characterization of <i>Pseudomonas aeruginosa</i> from the rhizosphere of <i>Brassica oleracea</i> L.	Reported several rhizosphere bacteria that exhibited pathogenicity to include: <i>Pseudomonas</i> , <i>Bacteroides</i> , <i>Aeromonas</i> , <i>Enterobacteriaceae</i> , <i>Streptococcus</i> , <i>Staphylococcus</i> , <i>Bacillus</i> , <i>Enterococcus</i> , <i>Paenibacillus</i> sp.
2	Prakash, K. B. and Mohan, M. C. (2019)	Isolation and Characterization of <i>Pseudomonas aeruginosa</i> from the rhizosphere of <i>Brassica oleracea</i> L.	Isolated rhizosphere <i>Pseudomonas aeruginosa</i> from the rhizosphere of <i>Brassica oleracea</i> L. The isolate was identified as <i>Pseudomonas aeruginosa</i> based on morphological, biochemical, and molecular characteristics. The isolate was found to be pathogenic to <i>Brassica oleracea</i> L. and caused significant damage to the plant.
3	Prakash, K. B., Mohan, M. C., and Kishanraj, S. S. (2019)	Isolation and Characterization of <i>Pseudomonas aeruginosa</i> from the rhizosphere of <i>Brassica oleracea</i> L.	Isolated rhizosphere <i>Pseudomonas aeruginosa</i> from the rhizosphere of <i>Brassica oleracea</i> L. The isolate was identified as <i>Pseudomonas aeruginosa</i> based on morphological, biochemical, and molecular characteristics. The isolate was found to be pathogenic to <i>Brassica oleracea</i> L. and caused significant damage to the plant.
4	Prakash, K. B., Mohan, M. C., and Kishanraj, S. S. (2019)	Isolation and Characterization of <i>Pseudomonas aeruginosa</i> from the rhizosphere of <i>Brassica oleracea</i> L.	Isolated rhizosphere <i>Pseudomonas aeruginosa</i> from the rhizosphere of <i>Brassica oleracea</i> L. The isolate was identified as <i>Pseudomonas aeruginosa</i> based on morphological, biochemical, and molecular characteristics. The isolate was found to be pathogenic to <i>Brassica oleracea</i> L. and caused significant damage to the plant.



Ph.D Viva-Voce Examinations being held at the Dept. of Microbiology during May, 2020

Faculty Development Programme for JAIN Faculty and Research Scholars, organised by CERSSE in June, 2020



Guest Speakers and Moderators for the Fortnightly Webinars organised by CERSSE since May, 2020



In Jest

This section has been compiled by our Guest Editor Dr. Arijit Das and his research scholar Ms. Vrinda S.



Source: oxfamblogs

Which is better: work at office or work from home?

Kitchen vs Laboratory

Follow protocols



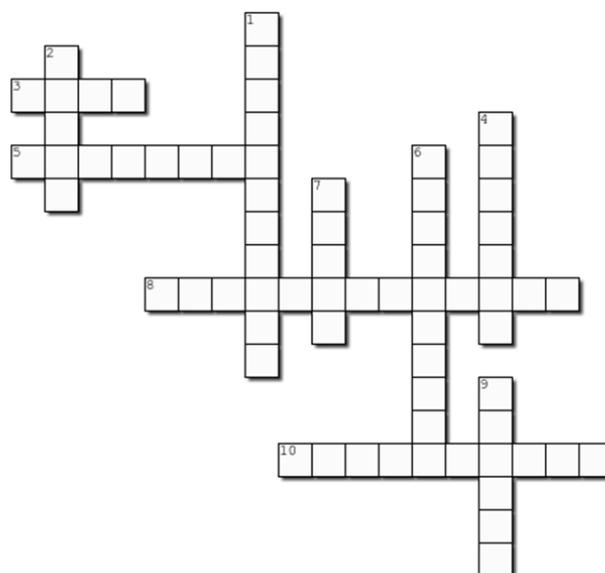
Analyze results



Clean up the mess



Source: BioLegend



Created using the Crossword Maker on TheTeachersCorner.net

Across

3. Denomination of first paper currency issued by RBI
5. The most Oscars in 2020
8. A clinical trial for COVID-19
10. Montreal protocol

Down

1. FIFA Best Player 2019 Award
2. Valmiki National Park, Tiger Reserve and Wildlife Sanctuary
4. Pankaj Advani won his 22nd World Billiards Title in 2019
6. This lady won Nobel Prize twice in different areas
7. First case of novel coronavirus
9. World's first sustainable bio-fuels economy

Team Thinklet

Guest Editors: Dr. Srividya Shivakumar, Dr. Arun Bhattacharyya, Dr. Suchithra R., Dr. R. Sukumar, Dr. Arati Rao, Dr. D. Yogananda Rao, Dr. Madhavi R., Dr. Shajesh P, Dr. Guneet Inder Jit Kaur and Dr. Arijit Das

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ARTICLES FOR NEXT ISSUE SHOULD BE SENT BY **20th JULY 2020** OF **NOT MORE THAN 250 WORDS**

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