

Digital University Kerala Newsletter

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Message

Welcome to the April edition of the Digital University of Kerala's monthly newsletter. Being a postgraduate research and innovation focussed university, we believe innovation to be instilled upon every part of the university's DNA. Over the last several months, a significant amount of work has gone into the development of the university academic, research and product innovation ecosystem that encourages translational research, product development and quality assurance as its core values.



The emphasis on emerging areas such as Block Chain, AI algorithms and hardware, new 2D materials, Data analytics, Cyber Security, Sensors and IoT, electronic systems, sustainable development etc form some of the core translational strengths crossbreeding innovations from research labs, classrooms and industry.

The postgraduate courses such as MBA, M.Tech, MSc and PhD offers a wide range of emerging and unique specialisation to confront the changing applications and use of digital technologies. The courses follow a credit system offering teaching and learning innovations, and internships throughout the study period. I believe universities are a place to transform and learn through hands-on practice, and this process can be led through high quality research, innovation and product development. Keeping these as some of the foundations, the university welcomes collaborations from both academia and industry in shaping the world around us to be better, brighter, healthier and a safer place to live. While we present our achievements and activities on a regular basis, your continued support is very much appreciated in growing the reach of this newsletter.

Dr Alex James
Professor and Dean (Academic)



Latest News Updates

Delegation visit from Madhya Pradesh

The Government of M.P. is interested in set-up up Digital University at UJJAIN (a sacred place of Lord Mahakaleshwar). As our organization is already recognized as one of the novel and leading Digital universities, as per the instruction of the MP State Government, one Government official and two staff members visited our University on 20th April-23rd April 2022 to get acquainted with the set-up of the Digital University. Dr. Alok Sinha, OSD, M.P. Government Higher Education Department, Bhopal; Dr. Sudhir Kumar Jain, Associate Professor, Vikram University, Ujjain and Dr. Ramji Yadav, Assistant Professor, Vikram University, Ujjain were among the delegates who visited our university.



Chief Minister's Nava Kerala Post-Doctoral Fellowship winners from DUK

Dr. Mithun Padmakumar, (Visiting Research Fellow) of the School of Digital Sciences, Nava Kerala Post Doctoral Fellowship awarded to the project entitled "Effects of Ultrasonic Neuromodulation on Nucleus Accumbens Neurons: A Computational Study".

Mentor: Dr. John Eric Steephen



Dr. Sherin D.R., Research Scientist, School of Digital Sciences, Nava Kerala Post Doctoral Fellowship awarded to the project entitled "Unravelling an Effective Phytochemical Scaffold in the Development of NIRF Probe for the Early Detection of Amyloid- β plaques: An AI-Based Approach".

Mentor: Dr. T. K. Manojkumar



Dr. Vijender Kumar Sharma, Research Scientist, School of Digital Sciences, Nava Kerala Post Doctoral Fellowship awarded to the project entitled "CAD Tool for Power Delivery Analysis and On-Chip Implementation of Variable Negative Impedance Circuits (CADT-PDA-VNIC)".

Mentor: Dr. Alex P James



Events Corner

Five day International Workshop – CogniZance'22 concludes at Digital University Campus

CogniZance'22 International workshop was conducted by Centre for Excellence in Brain Computing [CEBC] at Digital University campus from April 25- 29, 2022. CEBC aims to contribute in Brain science research and develop Intelligent Digital Systems by analyzing the human brain activity through brain computer interfaces and state-of-the-art technologies. Around 60 participants from all over India participated in the workshop.

Dr. B. Ekbal, Chairperson of Covid Expert Committee, Neurosurgeon and former Vice Chancellor of University of Kerala inaugurated the workshop. Digital University Vice Chancellor Dr. Saji Gopinath presided over the inaugural function. Dr Elizabeth Sherly CEBC Head and Dean Academic, chairperson of the programme and Dr Malu G, Research Officer, Convenor of Cognizance'22 were present on this occasion. Dr Sherly said the Center will expand by further collaboration with NIMHANS and IIT Delhi for BCI research.



Dr LaLan Kumar handling a session on "Anatomical harmonics Based Brain Science Localization" for the participants



CogniZance'22 participants with the organizing team



Prof. Achuthsankar S Nair taking a session on "Biological Intelligence to Artificial Intelligence" for the participants

Eminent National and International experts Prof. Jitendran Muthuswamy from Arizona State University, Prof. Achuthsankar S Nair and Dr. Biji C L from University of Kerala, Dr. Lalan Kumar from IIT Delhi, Dr. Hasan Al-Nashash from American University of Sharjah, Dr. Arun Sasidharan from NIMHANS, Dr. C. Kesavadas and Dr. Sujesh Sreedharan from SCTIMST, Mr. Robin Tommy from TCS Rapid Lab, Prof. Alex Pappachen James from Digital University, Prof. Raghu Raghavan from De Montfort University, Dr. Priyanka Srivastava from IIIT Hyderabad, Prof. Tapan Gandhi from IIT Delhi, Dr. Gisi Shibu from SP Fort hospital, Dr. Pragathi P. Balasubramani from IIT Kanpur, Dr. Joby Joseph from University of Hyderabad shared their expertise knowledge with the participants on various topics such as Explainable AI systems, Brain Imaging technologies in BCI, Pattern recognition & analysis, Brain computing techniques, Brain source Localization, Human attention - Neurological and psychological perspective, Biological Intelligence, Brain physiology and brain mapping, Neural correlation using eye tracking, Cognition in Metaverse, Challenges and opportunities of brain computing, Cognitive vigilance assessment and enhancement.



Dr B Ekbal, Chairperson of Covid Expert Committee delivering talk after inaugurating the workshop

Digital University Kerala curated public awareness with Mathrubhumi News and Deshabhimani on Girls in ICT

The Girls in ICT is an initiative at the International Telecommunication Union (agency of the United Nations (UN)). It is a global effort to raise awareness on empowering and encouraging girls and young women to consider studies and careers in ICTs. The International Girls in ICT Day, celebrated on the 4th Thursday of April each year. This year's theme was Access and Safety. For public awareness, Research Office, Digital University Kerala designed fifteen snippets in association with Mathrubhumi News and telecasted through the channel.

Dr Elizabeth Sherly conveyed the importance of Girls in ICT for Mathrubhumi News WakeUp Kerala programme. Deshabhimani newspaper published an article 'Sankethikathayude Chirakileeram' by Dr. Malu G to empower our girls in Digital Technologies. [More details](#)

To view the snippets please click
<https://youtu.be/q5wj9hKpEnE>
<https://youtu.be/-Q9HZnCTYdo>
<https://youtu.be/VqNQ6r7gLqU>
https://youtu.be/3W09JXJzL_I
https://youtu.be/7c_k46EoUrI
<https://youtu.be/mDmMdjEZpvI>
<https://youtu.be/UjGrv9jiOII>
<https://youtu.be/2dJveK7WPhQ>
<https://youtu.be/o70lXQrJO-U>
<https://youtu.be/B2FiRKKNXHk>
<https://youtu.be/xh1Sx1ZMe8w>
https://youtu.be/ojBRqT0_qGY
<https://youtu.be/c2TeCfe6oMw>
<https://youtu.be/lmBjEh5eqAY>
<https://youtu.be/pPHxORPY0fo>



WakeUp Kerala Mathrubhumi News - Dr. Elizabeth sherly

<https://fb.watch/deQhzUsdlc/>

Sankethikathayude chirakileeram - Dr Malu G

<https://epaper.deshabhimani.com/c/67914175>





Faculty Publications

B. Naresh Kumar Reddy, et al., "An FPGA and ASIC Implementation of Cubing Architecture," *Wireless Personal Communications*, 2022.

doi: [10.1007/s11277-022-09715-w](https://doi.org/10.1007/s11277-022-09715-w)

Sreelekshmi S., Malu. G. and Elizabeth Sherly, "Alzheimer's Disease Classification from Cross-sectional Brain MRI using Deep Learning," *2022 IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES)*, 2022, pp. 401-405, doi: [10.1109/SPICES52834.2022.9774135](https://doi.org/10.1109/SPICES52834.2022.9774135).



Knowledge Centre News

»»» Software of the Month

GIMP (GNU Image Manipulation Program)

GIMP is a cross-platform image editor available for GNU/Linux, macOS, Windows and more operating systems. It is free software, you can change its source code and distribute your changes. It has most of the features of Adobe Photoshop. You can download and install the software from <https://www.gimp.org/>.

GIMP is an acronym for GNU Image Manipulation Program. It is a program for photo retouching, image composition and image authoring.



GIMP provides top-notch color management features to ensure high-fidelity color reproduction across digital and printed media. It is best used in workflows involving other free software such as Scribus, Inkscape, and SwatchBooker.

GIMP provides extensibility through integration with many programming languages including Scheme, Python, Perl, and more.

The result is a high level of customization as demonstrated by the large number of scripts and plug-ins created by the community. [More details](#)

Source: Official website of GIMP

Information Resource of the Month
Directory of Open Access Books



Directory of Open Access Books (DOAB) is a community-driven discovery service that indexes and provides access to scholarly, peer-reviewed open access books and helps users to find trusted open access book publishers. It can be accessed at <https://www.doabooks.org/en>. All DOAB services are free of charge and all data is freely available.

The primary aim of DOAB is to increase discoverability of open access books. Academic publishers can provide metadata of their open access books to DOAB. DOAB is an open infrastructure committed to open science. It runs on the open source DSpace 6 platform. Metadata will be harvestable in order to maximize dissemination, visibility and impact.

The Directory of Open Access Books (DOAB) was established by OAPEN Foundation in 2012, in close cooperation with the Directory of Open Access Journals (DOAJ) & SemperTool.

The Directory of Open Access Books is a service of DOAB Foundation. DOAB Foundation is a non-profit legal entity under Dutch law ('stichting'), established by OAPEN Foundation and OpenEdition. The Foundation is based at the National Library in The Hague. Key developments and updates for DOAB are included in the OAPEN stakeholder report made available once per annum in coordination with OpenEdition.

(Courtesy: www.doaj.org)



Book Review of the Month

The Cold Start Problem: How to Start and Scale Network Effects by Andrew Chen

Amazing idea, great concept but only few customers- This is the Cold Start Problem. Andrew Chen, renowned blogger in technology brings a solution by drawing his own experiences also, laterally through the culmination of hundreds of interviews with three years of research and two decades of experience as an investor and operator, to conquer this hard side towards Rocketship growth. It is the NETWORK effect in building products. A network of Networks Yes, the leading products from Wikipedia to WhatsApp, LinkedIn, Dropbox, Tinder, Airbnb, Zoom and lot more became more powerful with every additional user.



A product without a network as to a telephone without a ring, a room with no renters nor a ride sharing app with no drivers makes no use. A product gets more value when more people use it which is the so termed network effect towards scaling up products and services. The essence is to get the right people and content at the same time to hit the ceiling with momentum, minimizing anti-network effects aiming towards an atomic network. Apparently, there would be a hard side, disproportionate user value, underutilized time energy objects and even zeros in the network. A zero in Uber app befall when you are not able to find a cab/driver when seriously needed a service, which is a lingering destructive effect. Chen further puts up strategies to manage the hard side through partnerships, bundling and even more by quoting examples of successful leading products that have leveraged NETWORK to an ECONOMY.

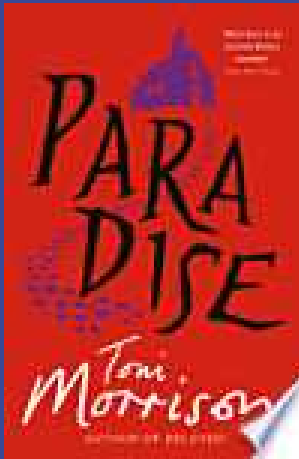


Dr. Sini V. Pillai
Research Officer





New Additions to the Collection



Paradise

Four young women are brutally attacked in a convent near an all-black town in America in the mid-1970s. The inevitability of this attack, and the attempts to avert it, lie at the heart of *Paradise*. Spanning the birth of the Civil Rights movement, Vietnam, the counter-culture and politics of the late 1970s, deftly manipulating past, present and future, this novel reveals the interior lives of the citizens of the town with astonishing clarity. Starkly evoking the clashes that have bedevilled the American century: between race and racelessness; religion and magic; promiscuity and fidelity; individuality and belonging.

‘When Morrison writes at her best, you can feel the workings of history through her prose’ Hilary Mantel, *Spectator*

–Source: *Publisher*

Morrison, T. (2019). *Paradise*. London: Penguin Random House.

Chronicle of A Death Foretold

Setting out to reconstruct a murder that took place 27 years earlier, this chronicle moves backwards and forwards in time, through the contradictions of memory and moments lost in time. Its irony gives the book the nuances of a political fable.

When newlywed Angela Vicario and Bayardo San Roman are left to their wedding night, Bayardo discovers that his new wife is no virgin. Disgusted, he returns Angela to her family home that very night, where her humiliated mother beats her savagely and her two brothers demand to know her violator, whom she names as Santiago Nasar.

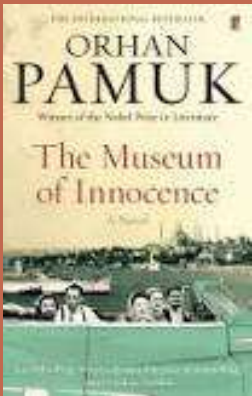
As he wakes to thoughts of the previous night's revelry, Santiago is unaware of the slurs that have been cast against him. But with Angela's brothers set on avenging their family honour, soon the whole town knows who they plan to kill, where, when and why.

–Source: *Publisher*

Garcia, M. G., & Rabassa, G. (2014). *Chronicle of a death foretold*. New Delhi: Penguin Random House.



The Museum of Innocence



The novel depicts a panoramic view of life in Istanbul as it chronicles this long, obsessive love affair; and Pamuk beautifully captures the identity crisis experienced by Istanbul's upper classes that find themselves caught between traditional and westernised ways of being. Orhan Pamuk's first novel since winning the Nobel Prize is a stirring love story and exploration of the nature of romance.

–Source: Publisher

Pamuk, O., & Freely, M. (2018). *The museum of innocence*. London: Faber and Faber.

Let's Kill Gandhi!

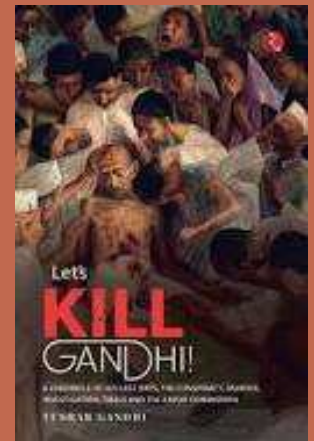
Since Gandhi's death at the hands of a Hindu extremist on 30 January 1948, many lies and half-truths about the great man have been concocted and presented as reality.

Gandhi was responsible for partition, Gandhi abandoned the Hindus, killing Gandhi was the only way to save India these are statements that continue to be propagated by Hindu extremists to justify Gandhi's murder.

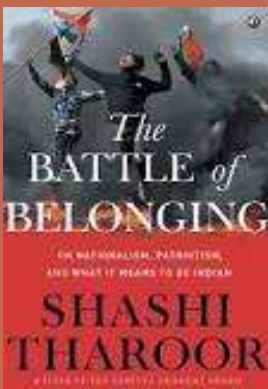
Written by Gandhi's great-grandson, Tushar A. Gandhi, *Let's Kill Gandhi!* draws on verbal history, archival material, records of trials and investigations, books by lawyers and judges, newspaper reports and the author's own family, to present a true chronicle of a conspiracy that went far beyond the man who pulled the trigger that killed Mahatma Gandhi.

–Source: Publisher

Gandhi, Tushar. (2021). *Let's kill Gandhi: Chronicle of his last days, the conspiracy, murder, investigation, trials and... the kapur commission*. S.l.: RUPA & CO.



The Battle of Belonging



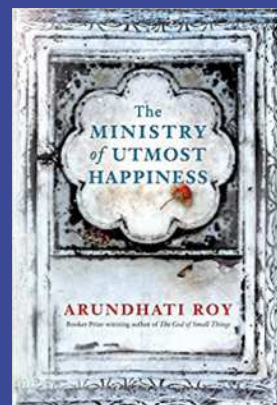
But are some Indians more Indian than others? To answer this question, one that is central to the identity of every man, woman, and child who belongs to the modern Republic of India, eminent thinker and bestselling writer Shashi Tharoor explores hotly contested ideas of nationalism, patriotism, citizenship, and belonging.

–Source: Publisher

Tharoor, Shashi. *The battle of belonging: On nationalism, patriotism, and what it means to be Indian*. (2020). New Delhi: Aleph.

The Ministry of Utmost Happiness

Glorious....remarkable, colorful and compelling. . . Roy has a passionate following, and her admirers will not be disappointed. This ambitious new novel, like its predecessor, addresses weighty themes in an intermittently playful narrative voice. At the novel's heart are three male friends from university and the woman they all loved and continue to love.... Their lives come together like puzzle pieces; the telling involves an unusual combination of epic and classic echoes; of unexpected detail; and, unforgettably, an unflinching realism. You will [be] granted a powerful sense of their world, of the complexity, energy and diversity of contemporary India, in which darkness and exuberant vitality and inextricable intertwined. --Claire Messud, *The Financial Times*



Roy, A. (2018). *The ministry of utmost happiness*. New Delhi: Penguin Random House



The Design of Everyday Things

The *Design of Everyday Things* shows that good, usable design is possible. The rules are simple: make things visible, exploit natural relationships that couple function and control, and make intelligent use of constraints. The goal: guide the user effortlessly to the right action on the right control at the right time. *The Design of Everyday Things* is a powerful primer on how -- and why -- some products satisfy customers while others only frustrate them.

- Amazon

Norman, D. A., & Hellegers, N. (2018). *The design of everyday things*. U.S.A: Basic Books.

The Platform Delusion

The Platform Delusion demystifies the success of the biggest digital companies in sectors from retail to media to software to hardware, offering readers what those companies don't want everyone else to know. Knee's insights are invaluable for entrepreneurs and investors in digital businesses seeking to understand what drives resilience and profitability for the long term.

-Amazon

Knee, J. A. (2021). *The platform delusion: Who wins and who loses in the age of tech titans*. New York: Penguin.



Check the OPAC of Knowledge Centre for new additions and their availability at <http://libcat.duk.ac.in:8081/>



More Titles Added...

- 👉 [When we cease to understand the world by Benjamin Labatut](#)
- 👉 [We can't keep meeting like this by Rachel Lynn Solomon](#)
- 👉 [Anatomy: A love story by Sana Schwartz](#)
- 👉 [Whereabouts: A novel by Jhumpa Lahiri](#)
- 👉 [In an ideal world by Kunal Basu](#)
- 👉 [Blindness by Jose Saramago](#)
- 👉 [The tin drum by Gunter Grass](#)
- 👉 [The trial by Franz Kafka](#)
- 👉 [Roots by Alex Haley](#)
- 👉 [My Monticello by Jocelyn Nicole Johnson](#)
- 👉 [All the names by Jose Saramago](#)
- 👉 [Autumn by Karl Ove Knausgaard](#)
- 👉 [Where you come from by Sasa Stanisic](#)
- 👉 [Clandestine in Chile: The adventures of Miguel Littin by Gabriel Garcia Marquez](#)
- 👉 [Blue skinned gods by S J Sindu](#)
- 👉 [The story of the lost child by Elena Ferrante](#)
- 👉 [One hundred years of solitude by Gabriel Garcia Marquez](#)
- 👉 [News of kidnapping by Gabriel Garcia Marquez](#)
- 👉 [Chronicle of a death foretold by Gabriel Garcia Marquez](#)
- 👉 [The remains of the day by Kazuo Ishiguro](#)





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DUK ADMISSIONS 2022



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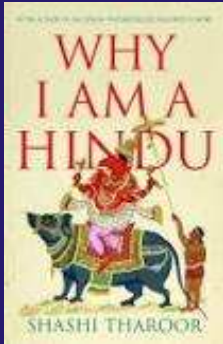
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Why I Am a Hindu



In *Why I Am a Hindu*, Shashi Tharoor offers a profound reexamination of Hinduism, one of the world's oldest and greatest religious traditions. Opening with a frank and touching reflection on his personal beliefs, he lays out Hinduism's origins and its key philosophical concepts -- including Vedanta, the Purusharthas and Bhakti -- before focusing on texts such as the *Bhagavadgita*. The 'Great Souls', or key individuals of Hinduism, from Adi Shankara to Vivekananda, are discussed, as are everyday Hindu beliefs and practices, from worship to pilgrimage to caste. Tharoor is unsparing in his criticism of extremism and unequivocal in his belief that what makes India a distinctive nation with a unique culture will be imperilled if Hindu 'fundamentalists', the proponents of 'Hindutva', or politic...

Source: Publisher

Tharoor, S. (2021). *Why I am a Hindu*.