

॥ ज्ञाने इमे ब्रह्मण्येव ॥



ADICHUNCHANAGIRI
UNIVERSITY



Faculty of Natural Sciences

Adichunchanagiri School of Natural Sciences

Collaborators



+ 91 9740832519



www.asns.ac.in



asns@acu.edu.in



ADICHUNCHANAGIRI
UNIVERSITY

About University

Adichunchanagiri University (ACU) is a multi-faculty private university committed to providing quality education and fostering a spirit of entrepreneurship among its students. The university boasts a sprawling 67-acre campus situated at BG Nagara, Nagamangala Taluk, Mandya District, equipped with state-of-the-art infrastructure, providing an ideal environment for academic and personal growth. ACU has a vibrant academic community with 4974+ students currently enrolled. The university prides itself on its 488+ teaching faculty members, supported by 64+ adjunct/visiting faculty, and an additional 1,123+ non-teaching staff. This diverse and dedicated team contributes to the holistic development of the students. Adichunchanagiri University (ACU) is committed to nurturing entrepreneurial ideas and innovation in its students. It hosts various centers for cutting-edge research and innovation, providing a holistic educational experience in line with the university's vision and mission.

3



About College

The Faculty of Natural Sciences (FNS), Inaugurated in 2020, the Faculty of Natural Sciences represents a modern, dynamic entity focused on education and research in various scientific disciplines. With comprehensive BSc, master's, and PhD programs, the faculty is dedicated to nurturing scientific acumen through rigorous academics and innovative research.

Undergraduate Programs: The undergraduate offerings at the Faculty of Natural Sciences provide a broad foundation across key scientific areas, ensuring students gain a well-rounded education in their chosen fields. The BSc programs available include:





ADICHUNCHANAGIRI
UNIVERSITY

- **PCM (Physics, Chemistry, Mathematics):** A classic combination that equips students with the essential principles of the physical sciences and mathematics.

- **PCB (Physics, Chemistry, Biochemistry):** Designed for students interested in the interplay between chemical and biological processes.

- **PMCs (Physics, Mathematics, and Computer Science):** This program targets the increasingly relevant intersection of physical sciences and computational technology, preparing students for careers in emerging tech-driven industries.

Master's Programs: The master's degrees at the faculty further specialize in critical scientific areas, allowing students to deepen their knowledge and engage in focused research:

- Biochemistry
- Biotechnology
- Microbiology
- Physics
- Chemistry

These programs are structured to provide advanced theoretical understanding and hands-on laboratory experience, preparing graduates for professional and academic careers.

Doctoral Programs: PhD programs are the pinnacle of academic offerings at the faculty, fostering an environment of scholarly research and innovation. Doctorates are available in:

- Biochemistry
- Biotechnology
- Chemistry
- Microbiology
- Physics
- Material Science
- Library and Information Science

These programs are designed for deep scholarly research, contributing to scientific knowledge and technological advancements.





ADICHUNCHANAGIRI
UNIVERSITY

The heraldic design of the logo brings out the heritage look & feel of Adichunchanagiri. The teachings from our past, from our nature and surrounding that has evolved through generation are being taught here to the next generation in a disciplined way from an institution that has a rich traditional foundation.

The colours maroon and Purple give the logo a royal touch while distinguishing it clearly from the many shades of cliched blue that is generally associated with education. The colours also symbolise courage, power, nobility, luxury and ambition.

Purple colour of the logo is inspired from a shade of purple spotted on a peacock by the University Chancellor Jagadguru Sri. Sri. Sri. Dr. Nirmalanandanatha Mahaswamiji and is also a colour associated with wisdom, dignity, independence, creativity, mystery and magic.

The globe icon used within the shield symbolises Global standards of education, with India part of the map strategically fitting within the 'U' as though it is being highlighted, for it is today an education destination for students from world over.

VISION

Excellence in education and Research, provide a transformative and enriching educational journey, and developing leaders to meet national and global needs

MISSION

To deliver quality education, promote innovative research, foster holistic development, engage with the community, and ensure an inclusive and diverse learning environment

Accreditation and Recognition



“सा विद्या या विमुक्तये”

“Sa Vidya Ya Vimuktaye – that which liberates is Knowledge”

Knowledge or vidya gives power, pleasure, and honor. Both science and spirituality enrich us with knowledge, but that knowledge is superior, which leads us to liberation. Liberation from physical, mental, and external bonds is attained through the control of external nature with the help of science; while liberation from internal bonds is attained through ethics and religion.

Hindu scriptures say: ‘Sa Vidya Ya Vimuktaye; that which liberates is knowledge.’ The main role of knowledge is to free us from all these bondages: fear, doubts, inadequacy, and uncertainty. Total knowledge is apara and para, lower and higher, according to the Mundaka Upanishad.



ADICHUNCHANAGIRI
UNIVERSITY

Message from the Dean

It is with great pleasure and enthusiasm that I welcome you to Faculty of Natural Sciences (FNS), the youngest constituent unit of Adichunchanagiri University. As the Dean, I am honoured to lead a vibrant and dynamic community of scholars, researchers, and learners who are committed to the pursuit of knowledge and scientific excellence. Science has always been at the forefront of innovation and progress, shaping the world we live in today. At Science College, we strive to nurture and empower the next generation of scientific minds who will continue to push the boundaries of human understanding and contribute to solving the complex challenges of our time.

Our School is home to an exceptional faculty who are renowned experts in their respective fields. They are not only dedicated to imparting knowledge but also to fostering an environment of intellectual curiosity, critical thinking, and creativity.

Through their guidance, mentorship, and cutting-edge research, they inspire our students to explore their passions, engage in scientific inquiry, and make significant contributions to their chosen fields.

We offer a wide range of comprehensive and interdisciplinary B.Sc. M.Sc and Ph.D programs as per NEP-2020 in Physics, Chemistry, Mathematics, Biochemistry, Biotechnology, Molecular Biology, Microbiology, Material Science Nanoscience and many more. Our curriculum is designed to provide a strong foundation in fundamental principles while promoting hands-on learning, collaboration, and the application of knowledge in real-world contexts. We constantly review and update our programs and curriculum to ensure they align with the latest advancements and emerging trends in scientific research and industry.

ASNS boasts state-of-the-art laboratories, research centers, and facilities that provide an exceptional learning and research environment for our students and faculty. We encourage our students to actively participate in research projects, internships, and fieldwork opportunities, enabling them to gain practical experience and develop invaluable skills that will shape their future careers.

I invite you to explore our website to learn more about the exciting opportunities and resources available at ASNS. Whether you are a prospective student, a current student, a faculty member, or a visitor, we are here to support you on your academic journey and help you unlock your full potential.

Thank you for choosing Natural Science College, and I look forward to witnessing your growth, achievements, and contributions to the scientific community.



Warm regards,

Prof. Prashantha Kalappa,
Dean, Faculty of Natural Sciences



ADICHUNCHANAGIRI
UNIVERSITY

Message from the Principal

Welcome to our Faculty of Natural Sciences (FNS), a place where curiosity meets discovery, and learning knows no bounds. As the principal, I am honoured to be part of an institution that stands at the forefront of scientific education and research.

Our college is committed to fostering an environment where academic excellence and innovative thinking thrive. We believe in empowering our students with the knowledge and skills necessary to explore the natural world, solve complex problems, and contribute meaningfully to society.

We take pride in our dedicated faculty, who bring a wealth of experience and passion to their teaching and research. Their guidance and mentorship help cultivate critical thinking, creativity, and a lifelong love of learning in our students.

Our state-of-the-art facilities and resources provide a conducive environment for hands-on learning and cutting-edge research. We encourage our students to engage in collaborative projects, internships, and community outreach programs to broaden their horizons and apply their knowledge in real-world settings.

As we continue to grow and evolve, our commitment to academic excellence, innovation, and sustainability remains steadfast. We are excited about the future and the endless possibilities that lie ahead for our students and our institution.

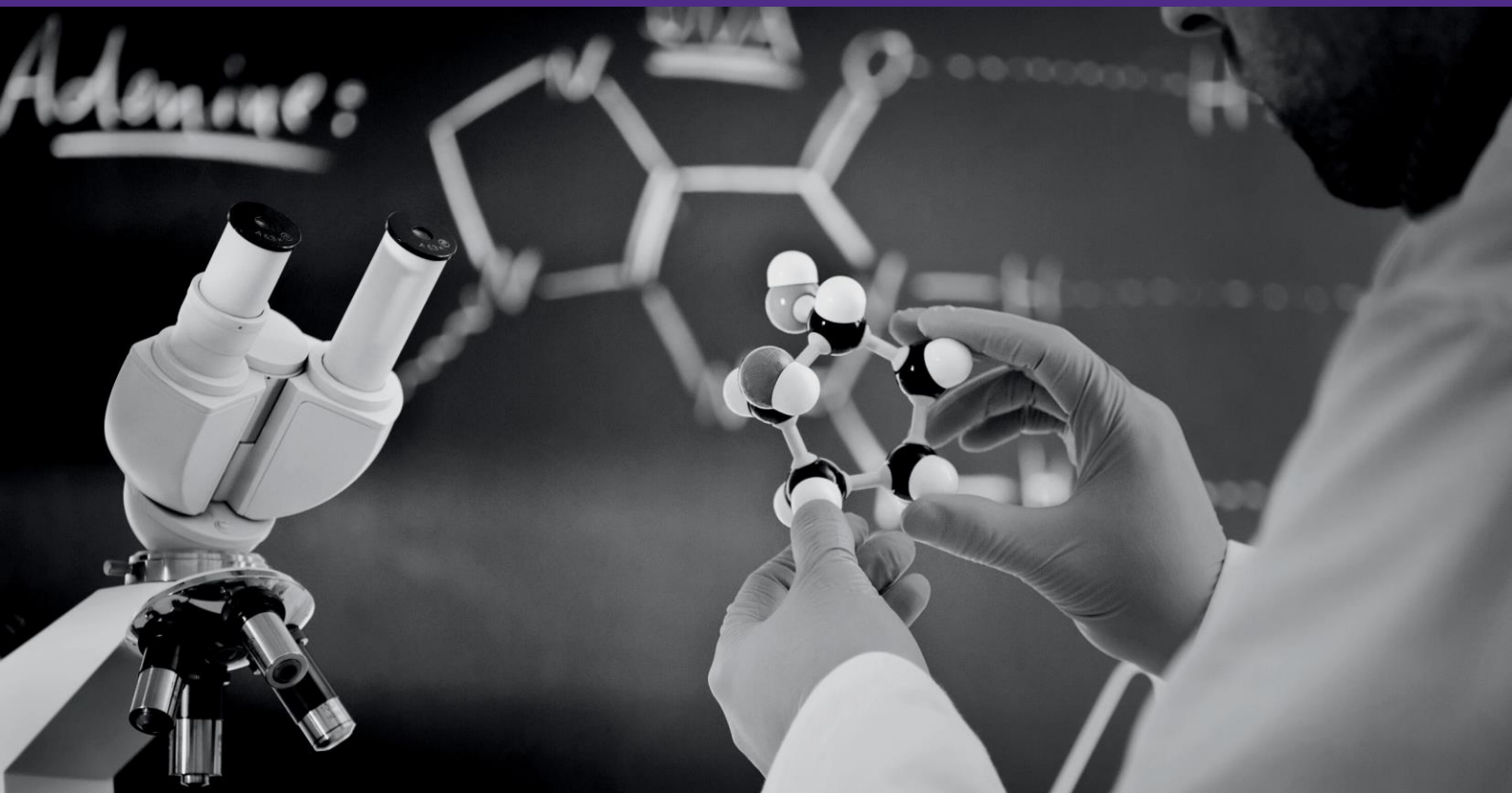
Thank you for being a part of our vibrant community. Together, we will continue to explore, discover, and achieve great things in the Natural sciences.



Dr. Shwetha H N, M.Sc., Ph.D
Principal, Faculty of Natural Sciences
Adichunchanagiri University



ADICHUNCHANAGIRI
UNIVERSITY



Center for Excellence

Adichunchanagiri Institute for Molecular Medicine (AIMM)

The Adichunchanagiri Institute for Molecular Medicine (AIMM), formerly the Adichunchanagiri Biotechnology and Cancer Research Institute, is a prominent research institute dedicated to elucidating the molecular underpinnings of various diseases. It collaborates with the Central Research Laboratory (AIMS-CRL) of the Adichunchanagiri Institute of Medical Sciences. AIMM has a distinguished history of investigating the therapeutic potential of dietary antioxidants in combating oxidative stress, a cellular imbalance linked to numerous ailments. Renowned for its scientific rigor, AIMM significantly contributes to disease prevention, drug discovery, and medical education. This focus positions AIMM to further advance global health outcomes. The institute fosters impactful collaborations, as evidenced by its partnerships with St. Jude Children's Research Hospital, Liveon Biolabs Private Limited, and the Indian Institute of Chemical Technology (CSIR-IICT), among others.

In the contemporary landscape of medical research, institutions like AIMM play an indispensable role. They provide critical insights into disease pathogenesis, paving the way for novel therapeutic interventions and personalized medicine approaches. AIMM's unwavering commitment extends beyond scientific discovery; it also fosters the development of the next generation of scientific leaders. As AIMM continues to evolve and innovate, it is poised to become a pivotal force in tackling significant health challenges, ultimately contributing to a healthier and more equitable world.



**ADICHUNCHANAGIRI
UNIVERSITY**

***The Interdisciplinary Research Institute
A Global Leader in Collaborative Innovation***
Adichunchanagiri Institute for Molecular Medicine
(AIMM)

Adichunchanagiri Institute for Molecular Medicine (AIMM) as the Interdisciplinary Research Institute takes immense pride in its unwavering commitment to research excellence and groundbreaking discoveries. As director, I am honored to unveil the remarkable achievements and contributions of our esteemed institution. We foster a dynamic environment that thrives on the cross-pollination of ideas, collaborative research, and the relentless pursuit of scientific breakthroughs. Our institute has garnered international recognition for its pioneering work in cancer therapeutics, RNA-interference technology, and the development of novel drug candidates with enhanced efficacy.



The core of our mission is unwavering dedication to inclusivity and diversity. We believe this is the foundation of our success. Guided by the invaluable mentorship of His Holiness Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji, Chancellor of Adichunchanagiri University, we bring together a diverse range of scholars and researchers. This fosters a vibrant exchange of ideas, leading to innovative solutions for global challenges.

Our interdisciplinary approach is key. We strategically build teams with unique expertise and fresh perspectives. This collaborative environment tackles ambitious projects, pushing boundaries. The synergy creates pioneering research, patents, and groundbreaking solutions by our esteemed faculty and researchers.

The AIMM has a distinguished record. Our researchers have made significant contributions in cancer therapeutics, RNA-interference, and novel drug development. These advancements showcase our commitment to pushing the boundaries of knowledge and creating a healthier future. We believe in nurturing future leaders. Through rigorous research programs, innovative teaching, and dedicated mentorship, we empower our students to lead in their chosen fields.

Looking ahead, the AIMM is poised to continue its pioneering trajectory. Our collaborative spirit and commitment to research excellence will propel us forward as a global leader in interdisciplinary research and education. We invite you to join us in this transformative journey as we redefine knowledge creation and positive societal impact.

Dr. Shobith Rangappa

Director/Associate Professor,
Adichunchanagiri Institute for Molecular Medicine
Adichunchanagiri University

A Hub of Cutting-Edge Research Facilities

AIMM boasts a state-of-the-art research infrastructure, equipped with specialized laboratories that cater to diverse scientific disciplines. This integrated network of facilities empowers researchers to delve deep into specific areas and seamlessly collaborate across fields.

Biochemistry Lab: This lab provides the tools to dissect the intricate workings of cells, focusing on the biochemical pathways that underpin health and disease.

Microbiology Lab: Dedicated to the exploration of the microbial world, this lab equips researchers to study bacteria, fungi, and other microorganisms, fostering advancements in areas like drug discovery and diagnostics.

- **Medicinal Chemistry Lab:** Here, researchers act as architects of novel molecules, synthesizing and manipulating compounds with therapeutic potential.
- **Cell Culture Lab:** This specialized facility allows researchers to cultivate and study cells under controlled conditions, providing a vital platform for understanding cellular processes and developing new treatments.
- **High-Throughput Screening Lab:** This high-powered facility accelerates the pace of discovery by enabling researchers to rapidly test large libraries of compounds against specific targets.

By housing these advanced facilities under one roof, AIMM fosters a dynamic environment where researchers can leverage the power of each lab to achieve groundbreaking discoveries.





Adichunchanagiri
University

ACU CENTER FOR RESEARCH AND INNOVATION (CRI)
Fostering Excellence in Education and Discovery



The 21st century has witnessed a paradigm shift in the global higher education landscape. Universities are no longer solely measured by their ability to impart knowledge, but also by their commitment to fostering research, innovation, entrepreneurship, and ultimately, advancing scientific progress. Institutions equipped with robust Research and Innovation (R&I) systems are garnering international acclaim, attracting top-tier faculty and students seeking to push the boundaries of knowledge. This trend coincides with a burgeoning interest in postgraduate studies, with a rise in the number of applicants pursuing Ph.D. programs worldwide. Recognizing this evolving educational ecosystem, Adichunchanagiri University (ACU) has embarked on a strategic initiative to fortify its research infrastructure. In response to this growing emphasis on R&I, ACU established a state-of-the-art research hub – the ACU Centre for Research and Innovation (CRI) – on October 9, 2020. The CRI serves as a cornerstone of ACU's commitment to nurturing a vibrant research culture and propelling the university to the forefront of academic excellence. In its quest to propel research excellence, the ACU Centre for Research and Innovation (CRI) actively fosters collaborations with leading national and international institutions like Wits University, The Centre for Cellular and Molecular Platforms (C-CAMP), CCAMP Inter Institutional Biomedical Innovation Programme (CIBIP), DST NIDHI (Dept. of Science & Technology – National Initiative for Developing and Harnessing Innovations (NIDHI)), Karnataka Science and Technology Promotion Society (KSTPS) and Karnataka Silk Board. These partnerships not only provide ACU researchers with access to world-class facilities and expertise, but also enhance the university's global visibility and reputation. By fostering a collaborative research environment, ACU-CRI is well-positioned to address complex challenges and make significant contributions to various fields of knowledge.



Central Sophisticated Instrumentation Laboratory (CSIL)

The Central Sophisticated Instrumentation Laboratory (CSIL) at Adichunchanagiri University (ACU) serves as a pivotal hub for scientific exploration. This state-of-the-art facility houses a comprehensive suite of analytical instruments designed to empower researchers across diverse disciplines. By providing access to advanced technologies, CSIL transcends the limitations of visual observation, enabling researchers to delve into the intricacies of material composition, structure, and properties at the micro level. This unparalleled capability fosters groundbreaking discoveries and fuels advancements across a wide spectrum of scientific fields.

Unveiling the Microscopic World: A Compendium of Analytical Tools

The CSIL boasts a meticulously curated collection of sophisticated instruments, each meticulously chosen to cater to a specific analytical need. Here's a closer look at some of the key instruments:

- **Fourier-Transform Infrared Spectroscopy (FTIR):** This versatile technique facilitates the identification of organic and inorganic functional groups within a sample, providing valuable insights into its chemical composition.
- **X-ray Diffraction (XRD):** XRD unveils the crystallographic structure of a material, offering crucial information about its atomic arrangement and phase composition.
- **UV-Visible Spectrophotometer:** This workhorse instrument quantifies the absorption or emission of ultraviolet and visible light by a sample, aiding in the determination of its concentration, composition, and electronic properties.
- **Freeze Dryer or Lyophilizer:** This instrument removes water from a sample through sublimation, enabling its long-term preservation without compromising its integrity.
- **High-Performance Liquid Chromatography (HPLC):** HPLC separates and analyzes the components of a mixture, offering invaluable insights into the sample's composition and purity.
- **3D Bioprinter:** This cutting-edge technology enables the creation of complex 3D structures from biocompatible materials, paving the way for advancements in tissue engineering and drug discovery.
- **Vacuum Glove Box:** This specialized chamber allows for the manipulation of materials in an oxygen-free or inert environment, preventing contamination and facilitating research on air-sensitive materials.
- **Liquid Nitrogen Generator:** This instrument provides a readily available source of liquid nitrogen, a crucial cryogen vital for various research applications, such as sample preservation and low-temperature experiments.
- **Contact Angle Measurement:** This technique quantifies the contact angle between a liquid droplet and a solid surface, providing valuable information about surface wettability and adhesion properties.
- **Refrigerated Centrifuge:** This instrument separates components within a mixture based on their size and density under high centrifugal forces. Refrigerated centrifuges are particularly useful for biological samples that are temperature-sensitive.

The CSIL serves as a cornerstone of Adichunchanagiri University's research excellence. This world-class facility empowers students at all levels – PhD scholars, postgraduate students, and undergraduates – to conduct groundbreaking research. The advanced instrumentation facilitates their endeavors, leading to publications in high-impact scientific journals. Furthermore, the CSIL has generated significant revenue (₹50,100.00) in the current academic year, highlighting its potential for not only fundamental research but also for industry-relevant applications. The CSIL's impact extends beyond its internal user base. The advanced instrumentation attracts researchers from within the university and from external institutions, fostering a vibrant collaborative research environment. This cross-pollination of ideas and expertise further propels scientific progress.



Our Faculty Members

Pioneering Scientist in Phytochemistry and Medicinal Chemistry

Dr. Dinesha R is an Associate Professor and Vice Principal at Faculty of Natural Sciences, Adichunchanagiri University. He earned his Ph.D. in Biochemistry from Mysore University, Karnataka, India, in 2013, focusing on the topic "BGS-Haridrin: A glycoprotein from Turmeric (*Curcuma longa* L)", under the guidance of Dr. Leela Srinivas, Former Director of Adichunchanagiri Biotechnology and Cancer Research Institute, B.G. Nagara, Mandya District. Prior to his doctoral studies, Dr. Dinesha completed his M.Sc. in Chemistry from Kuvempu University, Shankaraghatta, Shimoga, Karnataka, India. Since 2002, he has been dedicated to the discovery of promising antioxidant compounds from natural resources such as herbs, spices, and dietary components, with unique properties including anti-inflammatory, antimalarial, anti-carcinogenic, and memory-enhancing capabilities. Furthermore, Dr. Dinesha has filed two Indian patents: one for a synergistic polypeptide composition and its process (Application No.: 202141038719 filed on 26th Aug 2021), and another for a process aimed at enhancing the bioavailability of active compositions and preventing and treating macular degeneration (Application No. 202341037710, 1st June 2023). These patents reflect his innovative contributions to the field of biochemistry and pharmaceutical sciences.

Expert in Biochemistry and Molecular Medicine

Dr. Thamanna Gowda is a distinguished biochemist with a robust academic and research background. He completed his M.Sc. in Chemistry from Shimoga University in 2013 and earned his Ph.D. in Biochemistry from the University of Mysore in 2016. Dr. Gowda has over two decades of experience, starting as a Research Lab Technician and later as a Junior Scientific Officer at the Adichunchanagiri Biotechnology & Cancer Research Institute (1996–2019). Since 2019, he has been an Assistant Professor at the Adichunchanagiri Institute for Molecular Medicine, Adichunchanagiri University.

His research specializes in the isolation and purification of natural compounds from plant sources and their biological activities, including antioxidant, anti-inflammatory, anticancer, and antimicrobial properties. Dr. Gowda has published 25 papers in prestigious journals, such as *Molecular and Cellular Biochemistry* and the *Journal of Membrane Biology*, with an H-index of 2 and 70 citations. He has received a Rs.1.3 lakh intramural grant for his project on antimicrobial activities of novel piperazine compounds. With 18 years of teaching experience, he was honored with the Best Teacher Award by Adichunchanagiri University in 2023 and has guided over 50 M.Sc. students in their research projects.



Dr. Dinesha R
Vice Principal,
Adichunchanagiri University



Dr. Thamanna Gowda
Assistant Professor,
Adichunchanagiri University



**ADICHUNCHANAGIRI
UNIVERSITY**



Dr. Sudhanva M. S.
Associate Professor,
Adichunchanagiri University

Pioneering Scientist in Molecular Biology and Medicinal

Chemistry

Dr. Sudhanva M. S. is a distinguished scientist with expertise in Molecular Biology, Biochemistry, and Oncology. He earned his 5-year integrated M.Sc. in Molecular Biology from Yuvaraja's College, University of Mysore, and later worked at the CFTRI, Mysuru, under Dr. Nani Shankar, focusing on Carbohydrate Chemistry. In 2011, he pursued his doctoral studies at Chosun University, South Korea, specializing in microRNA regulations, and obtained his Ph.D. in 2016. Returning to India, he served as guest faculty at the University of Mysore before joining the Adichunchanagiri Institute for Molecular Medicine (AIMM) in 2017. At AIMM, he excels in Medicinal Chemistry, developing synthetic and natural small-molecule inhibitors against cancer. Dr. Sudhanva has published 21 research articles, holds 3 patents, and has secured significant research grants. He has guided over 50 Master's students and currently mentors 2 Ph.D. candidates.



Dr. M.D. Pandareesh
Associate Professor,
Adichunchanagiri University

Expert in Neuroprotective Biochemistry

Dr. M.D. Pandareesh obtained his Ph.D. in Biochemistry from the Defence Food Research Laboratory (DFRL), Mysore. He pursued post-doctoral research at the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore, and later at the New York State Institute for Basic Research in Developmental Disabilities. His research focuses on the cognitive-enhancing and neuroprotective roles of bioactive molecules against oxidative and nitrosative stress. Dr. Pandareesh's work encompasses the characterization of bio-conjugated pro-drugs derived from natural compounds to treat Alzheimer's and Parkinson's diseases, studying synaptic plasticity, and investigating mitochondrial and epigenetic modifications in neuronal disorders. He has published 24 research articles, holds an h-index of 16, and has received multiple research grants. Dr. Pandareesh has trained over 20 trainees in advanced biochemistry techniques and has significant expertise in *Drosophila* culturing and handling transgenic models.



Dr. Vivek H. K.

Associate Professor,
Adichunchanagiri University

Renowned Expert in Biochemistry and Biotechnology

Dr. Vivek H.K. began his academic journey with a Master's in Biochemistry from the University of Mysore, leading him to the Central Food Technological Research Institute in Mysuru, where he isolated and sequenced taste peptides. This project paved the way for his Ph.D. in Biotechnology at Visvesvaraya Technological University. His dedication earned him the CSIR–Senior Research Fellowship and TEQIP Student Assistantship. In 2016, Dr. Vivek joined Syngene International as a Senior Research Associate, working on high– profile projects for national and international clients. An expert in Venom Biology, Analytical Biochemistry, Medical Chemistry, Enzyme Technology, and Computational Biology, Dr. Vivek has published 72 research papers with an h-index of 21, guided over 30 Master's students, and collaborated with numerous nutraceutical companies. He also serves as a reviewer for prestigious journals, highlighting his significant contributions to the scientific community.

A Leader in Respiratory and Infectious Diseases Research

Dr. Narasaraju is a renowned researcher in respiratory and infectious diseases. He obtained his PhD in Microbiology from Osmania University and pursued postdoctoral research at prestigious institutions in the USA and Singapore. Currently, he is a professor of microbiology at Adichunchanagiri School of Natural Sciences, actively involved in teaching and research on influenza and SARS–CoV –2. His research focuses on understanding the mechanisms behind fatal influenza and SARS–CoV–2 infections. His work has shed light on the role of neutrophils and neutrophil extracellular traps (NETs) in causing hyperinflammation, tissue damage, and organ failure in these diseases. He has received significant funding (over US\$ 2 million) from esteemed organizations like NIH and published over 50 impactful research articles with a high citation count (h-index of 29). He actively contributes to the scientific community by serving as a guest editor for reputed journals and a reviewer for over 20 prestigious publications. Dr. Narasaraju's dedication to research has led to a better understanding of severe respiratory infections, paving the way for potential therapeutic interventions



Dr. Teluguakula Narasaraju

Professor,
Adichunchanagiri University



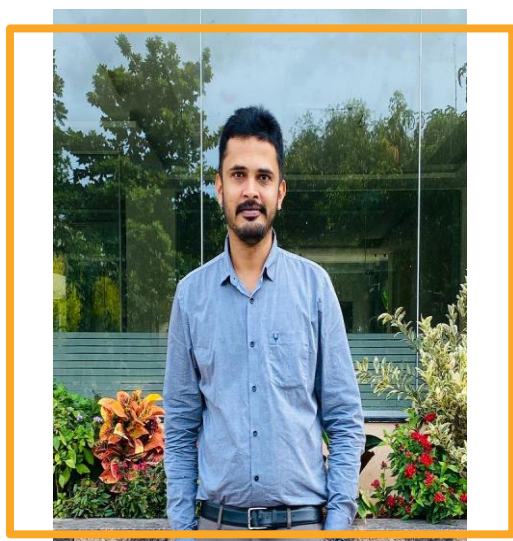
Expert in 2D–Nanomaterials Synthesis and Organic Chemistry



Dr. Girish Y.R.
Assistant Professor,
Adichunchanagiri University

Dr. Girish Y.R. is an accomplished researcher and educator specializing in synthesizing 2D–Nanomaterials, synthetic organic chemistry, medical chemistry, photocatalysis, and antimicrobial technology. He earned his Ph.D. in Chemistry from the University of Mysore, focusing on Nanomaterial synthesis for organic transformations. With a career spanning academia and research institutes like the Indian Institute of Science and Adichunchanagiri University, Dr. Girish has authored 36 research articles, including chapters in high-impact ACS publications. He has presented extensively at national and international conferences, garnering over 1200 citations and an h-index of 21. A dedicated mentor, he has supervised numerous Master's and undergraduate students and currently guides doctoral research. Dr. Girish contributes to peer-reviewed journals and serves as a reviewer for esteemed publications, including the Royal Society of Chemistry and Elsevier. His contributions underscore his commitment to advancing chemical sciences through innovative research and academic leadership.

Expert in Polysaccharide based Polymers and Nanotechnology



Dr. Anush S.M.
Assistant Professor,
Adichunchanagiri University

Dr. S M Anush is an Assistant Professor at Faculty of Natural Sciences, Adichunchanagiri University, Karnataka. He completed his Ph.D. in Chemistry from Mangalore University, specializing in chemically modified Chitosan. With expertise in diverse fields such as 3D Bio–Printing, nanoparticle functionalization, and polymer processing techniques, Dr. Anush has made significant contributions to wastewater purification and polymer technology. His academic journey includes 14 research articles, 4 conference presentations, and supervision of numerous student research projects. Notably, he has garnered over 320 citations and holds an h-index of 7, reflecting his impactful research contributions. Dr. Anush continues to excel in guiding doctoral candidates and enhancing scientific knowledge in his areas of expertise.



Expert in Synthetic Organic Chemistry



Dr. Nandeesh K. N
Assistant Professor,
Adichunchanagiri University

Dr. Nandeesh, K. N., obtained his M.Sc in Chemistry (Specialization in Organic Chemistry) from the University of Mysore, Manasa Gangotri, Mysore in 2006. After completing his M.Sc, he joined Syngene International Ltd., a Biocon company in Bangalore, where he worked as a Senior Research Associate in the Chemistry Research group for 5 years and 3 months. He obtained his B.Ed in 2011 from Bangalore University, Bangalore. Subsequently, he pursued his Ph.D under the supervision of Dr. K. Mantelingu, Professor at the Department of Studies in Chemistry, University of Mysore, Mysuru. During his doctoral studies, he focused on developing methods for synthesizing new heterocyclic derivatives and studying their biological properties. He was awarded his Ph.D in Chemistry in 2015. Following the completion of his Ph.D, Dr. Nandeesh, K. N. worked at various institutions. From February 2015 to October 2016, he served as a guest faculty at the Department of Studies in Chemistry, Manasagangotri, Mysore. He then joined Mahajan's College, Mysore as an Assistant Professor in the P.G. Department of Studies in Chemistry. Later, he served as an Assistant Professor in the P.G. Department of Studies in Chemistry at Acharya Institute of Graduate Studies, Bangalore. From October 17, 2016, to December 31, 2022, he worked as an Assistant Professor in the UG & P.G. Department of Chemistry at Yuvaraja's College, Mysore. During this period, he gained extensive experience as an internal and external practical invigilator, paper evaluator, and setter, providing valuation schemes for both undergraduate and postgraduate programs.

Expert in Biochemistry, Biotechnology, and Diabetes Research



Dr. Naveen Y. P
Assistant Professor,
Adichunchanagiri University

Dr. Naveen Y P is an esteemed academic and Assistant Professor at Adichunchanagiri University, India, renowned for his expertise in Biochemistry and Biotechnology. Holding a Ph.D. from the University of Mysore, his research focuses on diabetes, particularly in natural insulin potentiators and bio-inks for tissue engineering. With a robust academic career spanning over a decade, Dr. Naveen has supervised numerous M.Sc. research projects and conducted impactful workshops and seminars. His industry experience includes pivotal roles at esteemed companies, enhancing his ability to merge academia with practical applications. Dr. Naveen's 15 publications and prestigious awards, including the Early Career Research Award by VGST, highlight his significant contributions to biochemistry and diabetes management. Committed to innovative research, he continues to pioneer advancements in diabetes treatment strategies, ensuring a profound impact on both academic and industrial realms.



Mr. Rohan N Sagar
Assistant Professor,
Adichunchanagiri University

Expert in Polymer composites/nanocomposite Synthesis

Mr. Rohan N Sagar is an Assistant Professor at Faculty of Natural Sciences, Adichunchanagiri University, Karnataka. He is pursuing his Ph.D In Physics at Mangalore University, specializing in polymer composite/nanocomposite based microstructural, electrical, transport properties, and supercapacitor applications. His research area is mainly focuses on diverse fields such as polymer processing techniques, and nanoparticle synthesis and functionalization. Mr. Rohan N Sagar has made significant contributions to energy storage devices such as battery and supercapacitor applications. His academic journey includes 15 research articles, attended and presented in 8 international conferences, achieved two best poster presentation awards in international conferences and supervision of UG/PG student research projects.



Mrs. Harshitha M H
Assistant Professor,
Adichunchanagiri University

Expert in Graph Theory

Harshitha M H is an accomplished mathematician with a profound passion for the field of mathematics. She earned her Master's degree in Mathematics from Mysore University and currently serves as an Assistant Professor in the Department of Mathematics. In pursuit of furthering her academic journey, Harshitha is actively engaged in doctoral research under the guidance of Prof. C K Subbaraya, focusing her studies on graph theory. Her research endeavors delve into the intricate and fascinating realm of graph theory, exploring its theoretical foundations and practical applications. Through her work, Harshitha aims to contribute novel insights and solutions to challenges within this dynamic field. Beyond her research pursuits, Harshitha is dedicated to sharing her knowledge and passion for mathematics with her students. She is committed to fostering a stimulating learning environment that encourages critical thinking and exploration. Her teaching philosophy emphasizes not only the mastery of mathematical concepts but also their relevance and application in real-world contexts.



Ms. Rakshitha C M
Assistant Professor,
Adichunchanagiri University

Rakshitha C M is a dedicated academic and research scholar specializing in Physics and Material Science. She earned her Master's degree in Physics from Adichunchanagiri University in 2022. She began her career as an Assistant Professor at Faculty of Natural Sciences in the Department of Physics. Alongside her teaching responsibilities, Rakshitha is actively pursuing Ph.D. in Material Science under the guidance of Dr. Prashantha Kalappa. Her research is centered around the development and application of conducting polymers and nanomaterials, specifically focusing on their utilization in supercapacitors. Rakshitha's work aims to advance energy storage technologies by exploring innovative materials and optimizing their performance characteristics. In addition to her academic pursuits, Rakshitha is passionate about mentoring students and instilling a deep appreciation for scientific inquiry and discovery. She actively contributes to the academic community through her research endeavors, aiming to address critical challenges in energy sustainability and technological advancement.



Dr. Upendra N.
Assistant Professor,
Adichunchanagiri University

Expert in Molecular Dynamics and Bioinformatics

Dr. Upendra N. is an accomplished researcher specializing in Molecular Dynamics and Bioinformatics. He completed his M.Sc. and Ph.D. at the University of Mysore, excelling in competitive exams like CSIR-NET, GATE, and K-SET. With a robust academic background, he served as a Junior Teaching Fellow and Assistant Professor at prestigious institutions in Mysuru before joining Adichunchanagiri University in 2024. Dr. Upendra's research focuses on computational studies of bio- molecules and next-generation materials, yielding significant insights published in renowned journals. His work on RbgA and EngA GTPases has unveiled crucial allosteric connections, paving the way for potential therapeutic applications. Driven by a passion for understanding molecular mechanisms, he mentors doctoral students and contributes as a reviewer for leading scientific journals.



Mrs. Suvetha K
Assistant Professor,
Adichunchanagiri University

Mrs. Suvetha K has established a prominent career in microbiology and biotechnology, supported by her MSc in Applied Microbiology and her ongoing PhD in Marine Biotechnology. She has eight years of experience as an assistant professor in Tirupati and Secunderabad, where she made significant contributions to academic growth and student mentorship. Afterward, she spent two years as a research associate at Sri Adichunchanagiri School of Pharmacy and Adichunchanagiri Institute of Molecular Medicine, engaging in advanced research projects. Throughout her career, she has published 12 papers in diverse life science fields, showcasing her dedication to scientific advancement. Currently, she is an assistant professor and the Coordinator of Microbiology at Adichunchanagiri School of Natural Sciences, excelling in teaching and program management, and making substantial contributions to the institution's scientific and educational endeavors.



Ms. Parimala B. Umesh
Assistant Professor,
Adichunchanagiri University

Expert in Chemistry and Biotechnology Research

Parimala Hanumesh, with an M.S. in Chemistry from Western Illinois University and an M.Sc. in Biotechnology from Bangalore University, has a robust background in research and development. She served as a Senior Research Technologist at St. Jude Children's Research Hospital, contributing to significant projects in Chemical Biology and Therapeutics. Later, as an Assistant Manager at ALKEM Laboratories, she played a pivotal role in research management.

Adichunchanagiri University. She has published seven papers in esteemed journals like ACS Medicinal Chemistry, with an H-index of 4 and 65 citations. Her work extends to synthesizing anticancer/antibacterial drugs and isolating phytochemicals from plant sources.



Expertise in Biotechnology and Oncotherapeutics

Manjula R V, an accomplished biotechnology professional, earned her M.Sc. from Tumkur University in 2015. She began her career as a lab technician at Adichunchanagiri Hospital and Research Centre B G Nagara. After three years, she transitioned to the role of personal assistant to the Dean of Research at Adichunchanagiri University. Since April 2020, Manjula has been a Research Assistant at the Adichunchanagiri Institute for Molecular Medicine and a tutor since 2021. Concurrently, she is pursuing her Ph.D. under Dr. Prashantha K, focusing on Oncotherapeutics. Her research includes screening small molecules for anticancer properties, antimicrobial studies, and isolating phytochemical constituents from plants. Manjula has published four papers in reputed journals, demonstrating her significant contributions to the field.

Mrs. Manjula R. V
Assistant Professor,
Adichunchanagiri University



Ms. Supriya S.
Assistant Professor,
Adichunchanagiri University

Ms. Supriya S. holds a Master of Science degree from Adichunchanagiri School of Natural Sciences, Adichunchanagiri University, earned in 2022. She began her career as a Physics lecturer at The Best P.U. College at Jamkhandi and later worked as Physics lecturer at The Bharat Academy. Currently, she is serving as an Assistant Professor in the since 2024, Supriya is committed to advancing research and teaching in Physics.

In addition to her academic journey, Supriya has excelled in various extracurricular activities, representing her college in weightlifting, yoga, karate, and other cultural events, earning numerous accolades, including multiple state and national medals in karate. As Cadet Captain in the NCC unit (6 KAR/NCC Naval Unit, Udupi), she demonstrated exceptional leadership and participated in National camps in Gulbarga and Darjeeling. Supriya's achievements extend to her professional accomplishments, having cleared the KTET entrance in her first attempt. Her college recognizes her and awarded for her outstanding talents across diverse domains.



ADICHUNCHANAGIRI
UNIVERSITY



Mr. Praveen kumar C. K
Assistant Professor,
Adichunchanagiri University

Praveen Kumar CK has established a commendable career in chemistry and education, grounded in his MSc in Chemistry from Yuvaraja's College, University of Mysore. His early involvement as an NSS member and participation in the National Youth Camp (NYC) highlight his dedication to community service and leadership. Professionally, he gained significant industry experience as a production chemist at Sami Pharmaceuticals. Currently, he is an assistant professor at Faculty of Natural Sciences and serves as the NSS coordinator, where he combines his expertise in chemistry with a commitment to fostering social responsibility and volunteerism among students.



Non-Teaching Staff



Ms. Kavana B. R
Accounts Assistant, FNS



Ms. Vinutha C. N
Junior Assistant, FNS



Mr. Madhukumar
Attendant, FNS



Mrs. Rekha K. G
Lab Assistant, FNS



Mrs. Shruthi
House keeper, FNS



Ph.D Students of Faculty of Natural Science

Sl.No	Name	Specialization
1	Ms. Parimala B. Hanumesh	M. S. Chemistry & M. Sc. Biotechnology
2	Ms. Disha G	M.Sc in Biochemistry
3	Mr. Anil Kumar B. M	M.Sc. in Molecular Biology
4	Mr. Ajeya K.P	M.Sc in Chemistry
5	Ms. Priyadarshini A. N	M.Sc. in Microbiology
6	Mr. Kariyappa Gowda G. S	M.Sc in Chemistry
7	Mr. Vishnu K. T	M.Sc in Chemistry
8	Mr. Byresh Gowda B. K.	M.Sc in Biochemistry
9	Mr. Malleshappa C. O.	M.Sc. in Bioinformatics
10	Mr. Ranganath M.	M.Sc. in Zoology
11	Mr. Manjunath S	M.Sc. in Microbiology
12	Ms. Shreya G.	M.Sc in Chemistry
13	Mr. Veeresh M. Y	M.Sc in Biochemistry
14	Mr. Dhanush G. M	M.Sc in Biotechnology
15	Mr. Harshith J. M	M.Sc in Biotechnology
16	Ms. Bhumika H. S	M.Sc in Biochemistry
17	Mrs. Asharani B. G.	M.Sc in Botany
18	Mrs. Manjula R. V.	M.Sc in Biotechnology
19	Ms. Likhitha S.	M.Sc. in Molecular Biology
20	Ms Anusha B. R	M.Sc in Chemistry
21	Ms. Tanuja N. M	M.Sc in Chemistry
22	Ms. Chaithra B. A	M.Sc in Chemistry
23	Mr. Appu. S	M.Sc in Chemistry
24	Ms. Chandana	M.Sc in Chemistry
25	Mr. Bandi Kumar	M.Sc in Chemistry
26	Mr. Prajwal	M.Sc in Chemistry



27	Mr. Gangadhar Gowda P H	M.Sc in Chemistry
28	Mr. Harsha R Kashyap	M.Sc in Biotechnology
29	Ms. Rakshitha C M	M.Sc in Physics
30	Mr. Prabhu C	M.Sc in Chemistry
31	Mr. U Harikrishna	M.Sc in Chemistry
32	Mrs. Sana Mohammed	M.Sc in Physics
33	Mr. Dhananjay	M.Sc in Chemistry



Inverted fluorescence microscope imaging facility



Faculty of Natural Sciences (FNS) Patents Affiliated

Dr. Devaraj Reddy, Dr. Prathvi Shetty, Dr. Srilakshmi Aluri, Dr. Shobith Rangappa, Dr. M S Sudhanva, and Shreya Uday. Invented a composition of neem leaf water-soluble bitters and a process for its preparation. This patent was filed on December 21, 2022, with Application Number 202241074158.

Dr. Devaraj Reddy, Dr. Prathvi Shetty, Dr. Srilakshmi Aluri, Dr. Shobith Rangappa, Dr. M S Sudhanva, and Shreya Uday. Developed a bioactive bacopa extract and bitterless Ebelin lactone composition, along with a method for its preparation. This patent was filed on January 12, 2023, with Application Number 202341002516.

Dr. Devaraj Reddy, Dr. Prathvi Shetty, Dr. Srilakshmi Aluri, Dr. Shobith Rangappa, Dr. M S Sudhanva, and Shreya Uday. Formulated a composition of highly bioabsorbable ashwagandha root extract and detailed the process for its preparation. Filed on January 12, 2023, the patent bears Application Number 202341002519.

Rangappa KS, Basappa, Mohan CD, Shobith R, Bharathkumar H, Sethi G, Bender A, Lobie PE, Hui KM, Kumar AP, Pandey VK, Fuchs J, Shanmugam MK, Bulusu K, Dai X, Li F, and Deivasigamani. A invented compounds as modulators of the JAK-STAT pathway, with methods and applications thereof. This US patent (15/004114) was granted on January 22, 2016, and published as US 2016/0214968 A1 on July 28, 2016.

Rangappa KS, Basappa, Mohan CD, Shobith R, Keerthy HK, Sethi G, Bender A, Girish KS, Fuchs J, Sundaram MS, Li F, and Siveen KS. Developed compounds as modulators of tumor necrosis factor, with methods and applications thereof. This Indian patent (4345/CHE/2015) was published on February 24, 2017.

Peter Edward Lobie, Vijay Kumar Pandey, Rangappa Kanchugarakoppal Subbegowda, Basappa Salundi, Mohan Chakrabhavi Dhananjaya, and Shobith Rangappa. patented small molecule inhibitors of Bcl-2- associated death promoter (Bad) phosphorylation under US patent 16605630, dated April 30, 2020.

Peter Edward Lobie, Vijay Kumar Pandey, Rangappa Kanchugarakoppal Subbegowda, Basappa Basappa, Mohan Chakrabhavi Dhananjaya, and Shobith Rangappa. developed compounds useful in inhibiting human trefoil factor 3, as described in US patent 16619218, dated May 14, 2020.

Dinesha Ramadas, Vedamurthy Joshi, Ramesh Beveenahalli. A Synergistic Polypeptide Composition and a Process Thereof. Indian Patent Application No.: 202141038719 filed on 26th Aug 2021

Vedamurthy Joshi, Darshan C Nanjappa, Dinesha Ramadas, and Bharathi Doddla Raghunathanaidu. A process for augmenting bioavailability of active composition and preventing and treating macular degeneration. Indian patent Application No. 202341037710 1st June 2023

D Ravindran, Shashank Shetty, Sowmya Shree H S, **Shwetha H N**, J.Biju, G. Bavani, P. Deivendran. Semantic Multilinear Component Analysis Feature Extraction Based Distributed Denial-of-service (DDOS) Attacks Detection In Software Defined Networks.



Sensitization of Triple Negative Breast Cancer (TNBC) to DOXO by Garcinol

Investigators: Dr. Shobith Rangappa (PI), Dr. Sudhanva M. S. (Co-PI)

Project Amount: Rs. 15,00,000

Funding Agency: VGST, GOK

This project aims to enhance the effectiveness of doxorubicin (DOXO) in treating triple-negative breast cancer (TNBC) using garcinol. The study includes elucidating the molecular pathways involved using a nude mice tumor model, potentially paving the way for novel therapeutic strategies in breast cancer treatment.

Development of Novel Small Molecule Inhibitor as an Anticancer Agent

Investigator: Dr. Shobith Rangappa (PI)

Project Amount: Rs. 4,00,000

Funding Agency: ACU

Focused on synthesizing and developing a new small molecule inhibitor, this project targets its potential as an anticancer agent. The research aims to discover compounds that exhibit potent anti-cancer properties, contributing to the ongoing efforts in drug discovery at AIMM.

Diagnostic Efficacy in Extrapulmonary Tuberculosis

Investigators: Dr. Amitha (PI) (AIMS, ACU), Dr. Sudhanva M. S. (Co-PI)

Project Amount: Rs. 3,10,000

Funding Agency: ACU

This project evaluates the diagnostic efficacy of phenotypic and cartridge-based nucleic acid amplification techniques in extrapulmonary tuberculosis. Emphasis is placed on molecular characterization of *Mycobacterium tuberculosis*, aiming to improve diagnostic accuracy and patient management.

Radio Resistance Mechanisms in Breast Cancer

Investigator: Dr. Sudhanva M. S. (PI)

Project Amount: Rs. 1,50,000

Funding Agency: ACU

Examining the role of miR195 and miR497 in conferring radioresistance in breast cancer cells by upregulating PPM1D (WIPI), this project seeks to uncover molecular mechanisms underlying treatment resistance. Insights gained could lead to strategies for overcoming resistance and improving treatment outcomes.

Synthesis of Antimicrobial Chemical Library

Investigator: Dr. Thammanna Gowda S. S. (PI)

Project Amount: Rs. 1,30,000

Funding Agency: ACU

This project involves synthesizing a novel piperazine-based chemical library and evaluating its antimicrobial potency. The research aims to identify new compounds effective against microbial infections, contributing to the development of novel antimicrobial agents.

Characterization of Phenoxazines Libraries

Investigator: Ms. Parimala B. Hanumesh (PI)

Project Amount: Rs. 1,50,000

Funding Agency: ACU

Focused on synthesizing and characterizing N10-substituted phenoxazines libraries, this project aims to conduct preliminary screenings to assess their potential in various biomedical applications. The research contributes to AIMM's efforts in exploring diverse chemical structures for therapeutic purposes.



**ADICHUNCHANAGIRI
UNIVERSITY**

Reactive Rotational Molding of Bio-Based Polymers

Investigator: Dr. Prashantha Kalappa Dr. Hemaraju

Project Amount: Rs. 15,00,000.00

Funding Agency: Vision Group on Science and Technology, Govt. of Karnataka

Immuno-modulatory and Adjuvants effects of Chitosan Nanoparticles form Bombyx Mori

Investigator: Dr. K. Byrappa, Dr. Pandareesh M D, Dr. Narasaraju T A

Project Amount: Rs. 29,50,000.00

Funding Agency: Central Silk Board Ministry of Textiles, Govt. of India

Value Addition of Cellulose and Chitin Isolated from Sericulture Waste for Advance Packing Applications

Investigator: Dr. K. Byrappa, Dr. Prashantha Kalappa, Dr. Vivek H K, Dr. Babu A Manjasetty

Project Amount: Rs. 25,54,000.00

Funding Agency: Central Silk Board Ministry of Textiles, Govt. of India

Development of Antidiabetic Adjuvant Using Bioactives Isolated from the Seeds of Swietenia Mahagoni; A Preclinical Evaluation

Investigator: Dr. Naveen Y P

Project Amount: Rs. 10,00,000.00

Funding Agency: Vision Group on Science and Technology, Govt. of Karnataka

Ag-ZnO Nanogel: A Novel Promising Approach for Photocatalytic Antimicrobial Therapy

Investigator: Dr. Pandareesh M D

Project Amount: Rs. 9,50,000.00

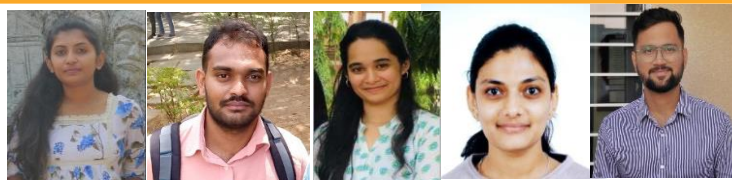
Funding Agency: DST-NIDHI PRAYAS, Govt. of India



Students Placement and Progression to Higher Education

Out of 75 Graduates (2020-22),

- » **59 students** - Working in Companies
- » **8 students** - Pursuing higher education in International and National Research Institutes.



Qualified - IELTS

IELTS
Test Report Form

ACADEMIC

Centre Number: 8888 Date: 08/07/2022 Candidate Number: 123456

Candidate Details

Family Name: JAIN

First Name: ADARSH

Candidate ID: 123456

Date of Birth: 15/08/1998 Sex: Male Country: India

Country of Origin: India

Language of Instruction: English

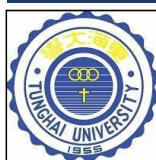
Test Results

Listening: 8.0 Reading: 8.0 Writing: 8.0 Speaking: 8.0 Overall Score: 8.0

Additional Comments

Signature: [Signature] Date: 08/07/2022

Higher Education in International and National Research Institutes



Working in Companies

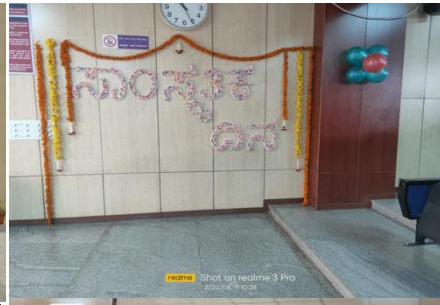




ADICHUNCHANAGIRI
UNIVERSITY

Faculty of Natural Sciences (ASNS)

Student Activities



Sports Activities



Faculty of Natural Sciences (FNS) Conferences / Symposium

Faculty Development Programme on "CAMPUS TO CORPORATE" was held from 19th to 23rd December 2022.

- An international conference on "Recent Trends in Molecular Biology" was organized on May 25, 20





Faculty of Natural Sciences (ASNS)

73 Publications Affiliated

1. Varsha Raj G, Priyadarshini HN, Prashantha K, Nagaraju G, Udayabhanu, Ramakrishnappa T. Green synthesis of Ag-ZnFe₂O₄@graphene nanocomposite for photocatalytic and electrochemical applications. *Optical Materials*. 2024;147.
2. Teluguakula N, Chow VTK, Pandareesh MD, Dasegowda V, Kurrapotula V, Gopegowda SM, et al. SARS-CoV-2 and Influenza Co-Infection: Fair Competition or Sinister Combination? *Viruses*. 2024;16(5).
3. Rajani MR, Ravishankar R, Raghavan. M S, Asha K, Vidya C, Suma GR, et al. Effective removal of Cr (VI) from an aqueous solution using a carbon coated NiFe₂O₄ nano-adsorbent. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. 2024;693.
4. Laxmiputra, B Nityashree D, Udayabhanu, Anush SM, Pramoda K, Prashantha K, et al. Construction of Z-Scheme MoS₂/ZnFe₂O₄ heterojunction photocatalyst with enhanced photocatalytic activity under visible light. *Materials Research Bulletin*. 2024;169.
5. Kiran KS, Kameshwar VH, Mudnakudu Nagaraju KK, Nagalambika P, Varadaraju KR, Karthik NA, et al. Diosmin: A *Daboia russelii* venom PLA₂s inhibitor- purified, and characterized from *Oxalis corniculata* L medicinal plant. *Journal of Ethnopharmacology*. 2024;318.
6. Girish YR, Vinothkumar K, Patil SA, Balakrishna RG, Pramoda K. Various Synthetic Strategies to Prepare Metal-Organic Frameworks. *ACS Symposium Series*. 2024;1463:49-67.
7. Dhanalakshmi B, Anil Kumar BM, Srinivasa Murthy V, Srinivasa SM, Vivek HK, Sennappan M, et al. Design, synthesis and docking studies of novel 4-aminophenol-1,2,4-oxadiazole hybrids as apoptosis inducers against triple negative breast cancer cells targeting MAP kinase. *Journal of Biomolecular Structure and Dynamics*. 2024;42(11):5841-57.
8. Anush SM, Raju SN, Gayathri BH, Ajeya KP, Girish YR, Darshan S, et al. Graphitic C₃N₄ incorporated chitosan-poly(vinyl alcohol) blend nanocomposites for the removal of Cu(II) and Cr(VI) ions from aqueous solutions. *Express Polymer Letters*. 2024;18(1):102-15.
9. Vidya C, Manjunatha C, Pranjal A, Faraaz I, Prashantha K. A multifunctional nanostructured molybdenum disulphide (MoS₂): an overview on synthesis, structural features, and potential applications. *Materials Research Innovations*. 2023;27(3):177-93.
10. Soundarya TL, Harini R, Manjunath K, Udayabhanu, Nirmala B, Nagaraju G. Pt-doped TiO₂ nanotubes as photocatalysts and electrocatalysts for enhanced photocatalytic H₂ generation, electrochemical sensing, and supercapacitor applications. *International Journal of Hydrogen Energy*. 2023;48(82):31855-74.
11. Shao M, Bigham A, Yousefiasl S, Yiu CKY, Girish YR, Ghomi M, et al. Recapitulating Antioxidant and Antibacterial Compounds into a Package for Tissue Regeneration: Dual Function Materials with Synergistic Effect. *Small*. 2023.
12. Sagar RN, Vasachar R, Hegde S. Microstructure and electrical properties of Li⁺ ion conducting polymer blend electrolyte films. *Express Polymer Letters*. 2023;17(9):883-99.
13. Saad KR, Kumar G, Puthusseri B, Srinivasa SM, Giridhar P, Shetty NP. Genome-wide identification of MATE, functional analysis and molecular dynamics of DcMATE21 involved in anthocyanin accumulation in *Daucus carota*. *Phytochemistry*. 2023;210.
14. S Jairam L, Chandrashekar A, Prabhu TN, Kotha SB, Girish MS, Devraj IM, et al. A review on biomedical and dental applications of cerium oxide nanoparticles — Unearthing the potential of this rare earth metal. *Journal of Rare Earths*. 2023;41(11):1645-61.
15. Risha Achaiah I, Gayathri BH, Banu N, Kaliprasad CS, Beena ullala mata BN, Ajeya KP, et al. Efficient removal of metal ions from aqueous solutions using MoS₂ functionalized chitosan Schiff base incorporated with Fe₃O₄ nanoparticle. *International Journal of Biological Macromolecules*. 2023;248.



16. Puttaswamy NY, Mahanta P, Sarma P, Medhi C, Kaid SMA, Kullaiah B, et al. Structure-based biological investigations on ruthenium complexes containing 2,2'-bipyridine ligands and their applications in photodynamic therapy as a potential photosensitizer. *Chemical Biology and Drug Design*. 2023;102(6):1506–20.
17. Prashantha K, Krishnappa A, Muthappa M. 3D bioprinting of gastrointestinal cancer models: A comprehensive review on processing, properties, and therapeutic implications. *Biointerphases*. 2023;18(2).
18. Prashantha K, Amita K. Insights into carcinogenic potential of micro(nano)plastics. *Express Polymer Letters*. 2023;17(2):118–9.
19. Pandareesh MD, Babu MR, Vijayalakshmi K, Titus DJ. Editorial: Oxidative stress and neuroinflammatory responses associated with metal toxicity in brain disorders. *Frontiers in Neurology*. 2023;14.
20. M PH, Al-Ostoot FH, Hamse Kameshwar V, Khamees H, Khanum SA. Design, synthesis, characterization, docking studies of novel 4-phenyl acrylamide-1,3-thiazole derivatives as anti-inflammatory and anti-ulcer agents. *Journal of Molecular Structure*. 2023;1292.
21. Girish YR, Udayabhanu, Byrappa NM, Alnaggar G, Hezam A, Nagaraju G, et al. Rapid and facile synthesis of Z-scheme ZnO/g-C₃N₄ heterostructure as efficient visible light-driven photocatalysts for dye degradation and hydrogen evolution reaction. *Journal of Hazardous Materials Advances*. 2023;9.
22. Dhanalakshmi B, Anil Kumar BM, Muddenahalli Srinivasa S, Vivek HK, Sennappan M, Rangappa S, et al. Design and synthesis of 4-aminophenol-1,3,4-oxadiazole derivative potentiates apoptosis by targeting MAP kinase in triple negative breast cancer cells. *Journal of Biomolecular Structure and Dynamics*. 2023.
23. Anush SM, Jr S, Gayathri BH, Girish YR, Naveen YP, Harshitha MH, et al. g-C₃N₄ based Chitosan Schiff base bio Nanocomposite for water purification. *Polymers and Polymer Composites*. 2023;31.
24. Amita K, Rakshitha H, Sanjay M, Kalappa P. Cytological features of 'Non-invasive follicular tumour with papillary like nuclear features' – A single institutional experience in India. *Journal of Cytology*. 2023;40(1):28–34.
25. Vijayan JG, Chandrashekar A, Ag J, Prabhu TN, Kalappa P. Polyurethane and its composites derived from bio-sources: Synthesis, characterization and adsorption studies. *Polymers and Polymer Composites*. 2022;30.
26. Swathantraiah JG, Srinivasa SM, Belagal Motatis AK, Uttarkar A, Bettaswamygowda S, Thimmaiah SB, et al. Novel 1,2,5-Trisubstituted Benzimidazoles Potentiate Apoptosis by Mitochondrial Dysfunction in Panel of Cancer Cells. *ACS Omega*. 2022;7(50):46955–71.
27. Suryakoppa KS, Kameshwar VH, Appadurai R, Eranna S, Khan MHM. Enantiomeric Separation of Indole-3-Propanamide Derivatives by Using Supercritical Fluid Chromatography on a Polysaccharide-Based Chiral Stationary Phase. *Journal of chromatographic science*. 2022;60(7):692–704.
28. Sreenatha V, Srinivasa SM, Rajendra Prasad KJ. Design, synthesis, bioevaluation, DFT, docking, and molecular dynamic simulation for selected novel 1,3,4-Oxadiazole – indole derivatives hybrid against estrogen receptor alpha. *Journal of Molecular Structure*. 2022;1269.
29. Shruthi S, Hegde VN, Jayashankar J, Karthik CS, Prashantha K, Mallu P. Investigation of thermal, mechanical and dielectrical properties of LiYO₂ filled poly(lactic acid) nanocomposites. *International Journal of Polymer Analysis and Characterization*. 2022;27(8):586–600.
30. Neema KN, Hamse Kameshwar V, Nafeesa Z, Kumar D, Babu Shubha P, Nagendra Prasad MN, et al. Serine protease from Indian Cobra venom: its anticoagulant property and effect on human fibrinogen. *Toxin Reviews*. 2022;41(1):165–74.
31. M PH, Al-Ostoot FH, Vivek HK, Khanum SA. Design, docking, synthesis, and characterization of novel N'(2-phenoxyacetyl) nicotinohydrazide and N'(2-phenoxyacetyl)isonicotinohydrazide derivatives as anti-inflammatory and analgesic agents. *Journal of Molecular Structure*. 2022;1247.
32. M PH, Al-Ostoot FH, Vivek HK, Khanum SA. Synthesis, characterization, DFT, docking studies and molecular dynamics of some 3-phenyl-5-furan isoxazole derivatives as anti-inflammatory and anti-ulcer agents. *Journal of Molecular Structure*. 2022;1250.
33. Kumar S, Singh R, Singh M, Singh TP, Batish A. Multi material 3D printing of PLA-PA6/TiO₂ polymeric matrix: Flexural, wear and morphological properties. *Journal of Thermoplastic Composite Materials*. 2022;35(11):2105–24.



34. Krishnaiah P, Manickam S, Ratnam CT, Raghu MS, Parashuram L, Prashantha K, et al. Surface-treated short sisal fibers and halloysite nanotubes for synergistically enhanced performance of polypropylene hybrid composites. *Journal of Thermoplastic Composite Materials*. 2022;35(11):2089–104.
35. Kouser S, Prabhu A, Prashantha K, Nagaraja GK, D'Souza JN, Meghana Navada K, et al. Modified halloysite nanotubes with Chitosan incorporated PVA/PVP bionanocomposite films: Thermal, mechanical properties and biocompatibility for tissue engineering. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*. 2022;634.
36. Kouser S, Prabhu A, Prashantha K, Nagaraja GK, D'souza JN, Navada MK, et al. In vitro evaluation of modified halloysite nanotubes with sodium alginate-reinforced PVA/PVP nanocomposite films for tissue engineering applications. *Applied Nanoscience (Switzerland)*. 2022;12(11):3529–45.
37. Jaiswal K, Girish YR, De M. Group-VI-Chalcogenide-Based Nanomaterials in Photo/Thermal Organic Transformations. *Accounts of Materials Research*. 2022;3(10):1033–48.
38. Jaiswal K, Girish YR, Behera P, De M. Dual Role of MoS₂ Quantum Dots in a Cross-Dehydrogenative Coupling Reaction. *ACS Organic and Inorganic Au*. 2022;2(3):205–13.
39. Girish YR, Udayabhanu, Alnaggar G, Hezam A, Nayan MB, Nagaraju G, et al. Facile and rapid synthesis of solar-driven TiO₂/g-C₃N₄ heterostructure photocatalysts for enhanced photocatalytic activity. *Journal of Science: Advanced Materials and Devices*. 2022;7(2).
40. Girish YR, Kumar BA, Kumar KSS, Hamse VK, K P, Sudhanva MS, et al. Identification of novel benzimidazole-based small molecule targeting dual targets Tankyrase and Bcl2 to induce apoptosis in Colon cancer. *Journal of Molecular Structure*. 2022;1269.
41. Dhanlakshmi B, Amita K, Prashantha K. Prognostic Significance of Lymphatic Vessel Density by D2-40 Immune Marker and Mast Cell Density in Invasive Breast Cancer: A Cross Sectional Study at Tertiary Care Hospital in South India. *Online Journal of Health and Allied Sciences*. 2022;21(1).
42. Ashrafizadeh M, Aghamiri S, Tan SC, Zarrabi A, Sharifi E, Rabiee N, et al. Nanotechnological Approaches in Prostate Cancer Therapy: Integration of engineering and biology. *Nano Today*. 2022;45.
43. Zha GF, Preetham HD, Rangappa S, Sharath Kumar KS, Girish YR, Rakesh KP, et al. Benzimidazole analogues as efficient arsenals in war against methicillin-resistance staphylococcus aureus (MRSA) and its SAR studies. *Bioorganic Chemistry*. 2021;115.
44. Xu M, Girish YR, Rakesh KP, Wu P, Manukumar HM, Byrappa SM, et al. Recent advances and challenges in silicon carbide (SiC) ceramic nanoarchitectures and their applications. *Materials Today Communications*. 2021;28.
45. Verma R, Verma SK, Rakesh KP, Girish YR, Ashrafizadeh M, Sharath Kumar KS, et al. Pyrazole-based analogs as potential antibacterial agents against methicillin-resistance staphylococcus aureus (MRSA) and its SAR elucidation. *European Journal of Medicinal Chemistry*. 2021;212.
46. Vagish CB, Kumara K, Vivek HK, Bharath S, Lokanath NK, Ajay Kumar K. Coumarin-triazole hybrids: Design, microwave-assisted synthesis, crystal and molecular structure, theoretical and computational studies and screening for their anticancer potentials against PC-3 and DU-145. *Journal of Molecular Structure*. 2021;1230.
47. V V, Achar RR, M.U H, N A, T YS, Kameshwar VH, et al. Venom peptides – A comprehensive translational perspective in pain management. *Current Research in Toxicology*. 2021;2:329–40.
48. Shwetha B, Sudhanva MS, Jagadeesha GS, Thimmegowda NR, Hamse VK, Sridhar BT, et al. Furan-2-carboxamide derivative, a novel microtubule stabilizing agent induces mitotic arrest and potentiates apoptosis in cancer cells. *Bioorganic Chemistry*. 2021;108.
49. Shreevatsa B, Dharmashekara C, Swamy VH, Gowda MV, Achar RR, Kameshwar VH, et al. Virtual screening for potential phytoactive as therapeutic leads to inhibit nqo1 for selective anticancer therapy. *Molecules*. 2021;26(22).
50. Sharath Kumar KS, Girish YR, Ashrafizadeh M, Mirzaei S, Rakesh KP, Hossein Gholami M, et al. AIE-featured tetraphenylethylene nanoarchitectures in biomedical application: Bioimaging, drug delivery and disease treatment. *Coordination Chemistry Reviews*. 2021;447.



51. Radhika R, Ramadas D, Ragavan B, Sudarsanam D, Kameshwar V. Acute toxicological and histopathological elucidation of Rheum emodi rhizome extract to demonstrate antidiabetic activity in alloxan-induced diabetic rats. *Current Bioactive Compounds*. 2021;17(2):174–86.
52. Pandareesh MD, Kameshwar VH, Byrappa K. Prostate carcinogenesis: Insights in relation to epigenetics and inflammation. *Endocrine, Metabolic and Immune Disorders – Drug Targets*. 2021;21(2):253–67.
53. Naveen YP, Urooj A, Byrappa K. A review on medicinal plants evaluated for anti-diabetic potential in clinical trials: Present status and future perspective. *Journal of Herbal Medicine*. 2021;28.
54. Mirzaei S, Gholami MH, Hashemi F, Zabolian A, Hushmandi K, Rahmanian V, et al. Employing siRNA tool and its delivery platforms in suppressing cisplatin resistance: Approaching to a new era of cancer chemotherapy. *Life Sciences*. 2021;277.
55. Kumara K, Prabhudeva MG, Vagish CB, Vivek HK, Lokanatha Rai KM, Lokanath NK, et al. Design, synthesis, characterization, and antioxidant activity studies of novel thienyl-pyrazoles. *Heliyon*. 2021;7(7).
56. Kumar AD, Vivek HK, Srinivasan B, Naveen S, Kumara K, Lokanath NK, et al. Design, synthesis, characterization, crystal structure, Hirshfeld surface analysis, DFT calculations, anticancer, angiogenic properties of new pyrazole carboxamide derivatives. *Journal of Molecular Structure*. 2021;1235.
57. Kouser S, Sheik S, Prabhu A, Nagaraja GK, Prashantha K, D'Souza JN, et al. Effects of reinforcement of sodium alginate functionalized halloysite clay nanotubes on thermo-mechanical properties and biocompatibility of poly (vinyl alcohol) nanocomposites. *Journal of the Mechanical Behavior of Biomedical Materials*. 2021;118.
58. Kouser S, Prabhu A, Sheik S, Prashantha K, Nagaraja GK, Neetha D'souza J, et al. Chitosan functionalized halloysite nanotube/poly (caprolactone) nanocomposites for wound healing application. *Applied Surface Science Advances*. 2021;6.
59. Kouser S, Prabhu A, Sheik S, Prashantha K, Nagaraja GK, D'Souza JN, et al. Poly (caprolactone)/sodium-alginate-functionalized halloysite clay nanotube nanocomposites: Potent biocompatible materials for wound healing applications. *International Journal of Pharmaceutics*. 2021;607.
60. Girish YR, Prashantha K, Byrappa K. Recent advances in aggregation-induced emission of mechanochromic luminescent organic materials. *Emergent Materials*. 2021;4(3):673–724.
61. Al-Ostoot FH, Zabiulla, Grisha S, Mohammed YHE, Vivek HK, Ara Khanum S. Molecular docking and synthesis of caffeic acid analogous and its anti-inflammatory, analgesic and ulcerogenic studies. *Bioorganic and Medicinal Chemistry Letters*. 2021;33.
62. Al-Ostoot FH, Sherapura A, V V, Basappa G, H.K V, B.T P, et al. Targeting HIF-1 α by newly synthesized Indolephenoxyacetamide (IPA) analogs to induce anti-angiogenesis-mediated solid tumor suppression. *Pharmacological Reports*. 2021;73(5):1328–43.
63. Afzal A, Saleel CA, Prashantha K, Bhattacharyya S, Sadhikh M. Parallel finite volume method-based fluid flow computations using OpenMP and CUDA applying different schemes. *Journal of Thermal Analysis and Calorimetry*. 2021;145(4):1891–909.
64. Sridhara MB, Rakesh KP, Manukumar HM, Shantharam CS, Vivek HK, Kumara HK, et al. Synthesis of dihydrazones as potential anticancer and DNA binding candidates: A validation by molecular docking studies. *Anti-Cancer Agents in Medicinal Chemistry*. 2020;20(7):845–58.
65. Prashantha K, Rashmi BJ. Effect of chain extender on structural and mechanical properties of poly(butylene succinate-co-adipate)/halloysite nanotube bionanocomposites. *SPE Polymers*. 2020;1(2):101–12.
66. Prabhu Kumar KM, Vasantha Kumar BC, Kumar PR, Butcher RJ, Vivek HK, Suchetan PA, et al. Synthesis, characterization, CT-DNA binding and docking studies of novel selenated ligands and their palladium complexes. *Applied Organometallic Chemistry*. 2020;34(6).
67. Kumar Verma S, Verma R, Xue F, Kumar Thakur P, Girish YR, Rakesh KP. Antibacterial activities of sulfonyl or sulfonamide containing heterocyclic derivatives and its structure-activity relationships (SAR) studies: A critical review. *Bioorganic Chemistry*. 2020;105.



- 68.Kumar D, Hamse VK, Neema KN, Babu Shubha P, Chetan DM, Shivananju NS. Purification and biochemical characterization of a novel secretory dipeptidyl peptidase IV from porcine serum. *Molecular and Cellular Biochemistry*. 2020;471(1–2):71–80.
- 69.Kouser S, Sheik S, Nagaraja GK, Prabhu A, Prashantha K, D'Souza JN, et al. Functionalization of halloysite nanotube with chitosan reinforced poly (vinyl alcohol) nanocomposites for potential biomedical applications. *International Journal of Biological Macromolecules*. 2020;165:1079–92.
- 70.Jaiswal K, Girish YR, De M. Influence of a Tunable Band Gap on Photoredox Catalysis by Various Two-Dimensional Transition-Metal Dichalcogenides. *ACS Applied Nano Materials*. 2020;3(1):84–93.
- 71.Divya K, Vivek HK, Priya BS, Nanjunda Swamy S. Rapid detection of DPP-IV activity in porcine serum: A fluorospectrometric assay. *Analytical Biochemistry*. 2020;592.
- 72.Channa Basappa V, Hamse Kameshwar V, Kumara K, Achutha DK, Neratur Krishnappagowda L, Kariyappa AK. Design and synthesis of coumarin-triazole hybrids: biocompatible anti-diabetic agents, in silico molecular docking and ADME screening. *Heliyon*. 2020;6(10).
- 73.Ambika MR, Nagaiah N, Prashantha K. Thermal resistance and mechanical stability of tungsten oxide filled polymer composite radiation shields. *International Journal of Polymer Analysis and Characterization*. 2020;25(6):431–43.



ADICHUNCHANAGIRI
UNIVERSITY

Engineering

B.E

- Civil Engg.
- Mechanical Engg.
- Computer Science & Engg.
- Information Science & Engg.
- Electronics & Comm. Engg.
- Artificial Intelligence and Machine Learning

M.Tech

- Structural Engg.
- Computer Science & Engg.
- VLSI Design & Embedded system
- Infrastructure Management

+91 98861 08095 bgsit@acu.edu.in

Management

M.B.A (HR, Finance & Marketing)

+91 98861 08095 bgsit@acu.edu.in

Medical

M.B.B .S | M.D | M.S

M.P.H

M.Sc. (Medical) Biochemistry, Microbiology

M.H.A (Master of Hospital Administration)

+91 98455 67500 aims@acu.edu.in

Pharmacy

D. Pharm | B. Pharm | Pharm.D

M. Pharm

Pharmaceutical Chemistry | Pharmacy

Practice Pharmaceutics | Pharmaceutical

Analysis Pharmacology | Pharma Regulatory

Affairs Pharmacognosy

+91 99721 33455 saccp@acu.edu.in

Nursing

GNM | B.Sc. | M.Sc.

+91 98806 35609 acn@acu.edu.in

Allied Health Sciences

B.Sc.

- Medical Laboratory Technology
- Medical Imaging Technology
- Renal Dialysis Technology Optometry
- Anaesthesia & Operation Theatre Technology
- Clinical Psychology

Diploma in

- Medical Laboratory Technology
- Medical Imaging Technology
- Health Inspector Ophthalmic Technology
- Dialysis Technology
- Medical Records Technology
- Operation Theatre Technology

BPT (Bachelor of Physiotherapy)

+91 98806 35609 acn@acu.edu.in

Natural Sciences

B.Sc. /B.Sc. (Hons.)

- Computer Science
- Artificial Intelligence and Machine Learning

- Physics & Chemistry
- Physics & Mathematics
- Chemistry & Biology

M.Sc.

Physics | Chemistry | Biochemistry | Biotechnology
Microbiology

+91 80881 57568 dean.ns@acu.edu.in

Humanities & Social Sciences

B.Ed.

+91 99014 11169 bgsce@acu.edu.in

B.Com. | M.Com. | BCA | BBA

+91 9886882312 bgsfgc@acu.edu.in



ADICHUNCHANAGIRI
UNIVERSITY



ADICHUNCHANAGIRI SCHOOL OF NATURAL SCIENCES

Adichunchanagiri University
Faculty of Natural Sciences
Adichunchanagiri School of Natural Sciences
Courses Offered
B.Sc.
Physics, Mathematics, Computer Science
M.Sc.
Physics, Mathematics, Chemistry, Biology



***“The only person Who is
educated is the one who has
learned how to learn and change.”***

– Carl Rogers