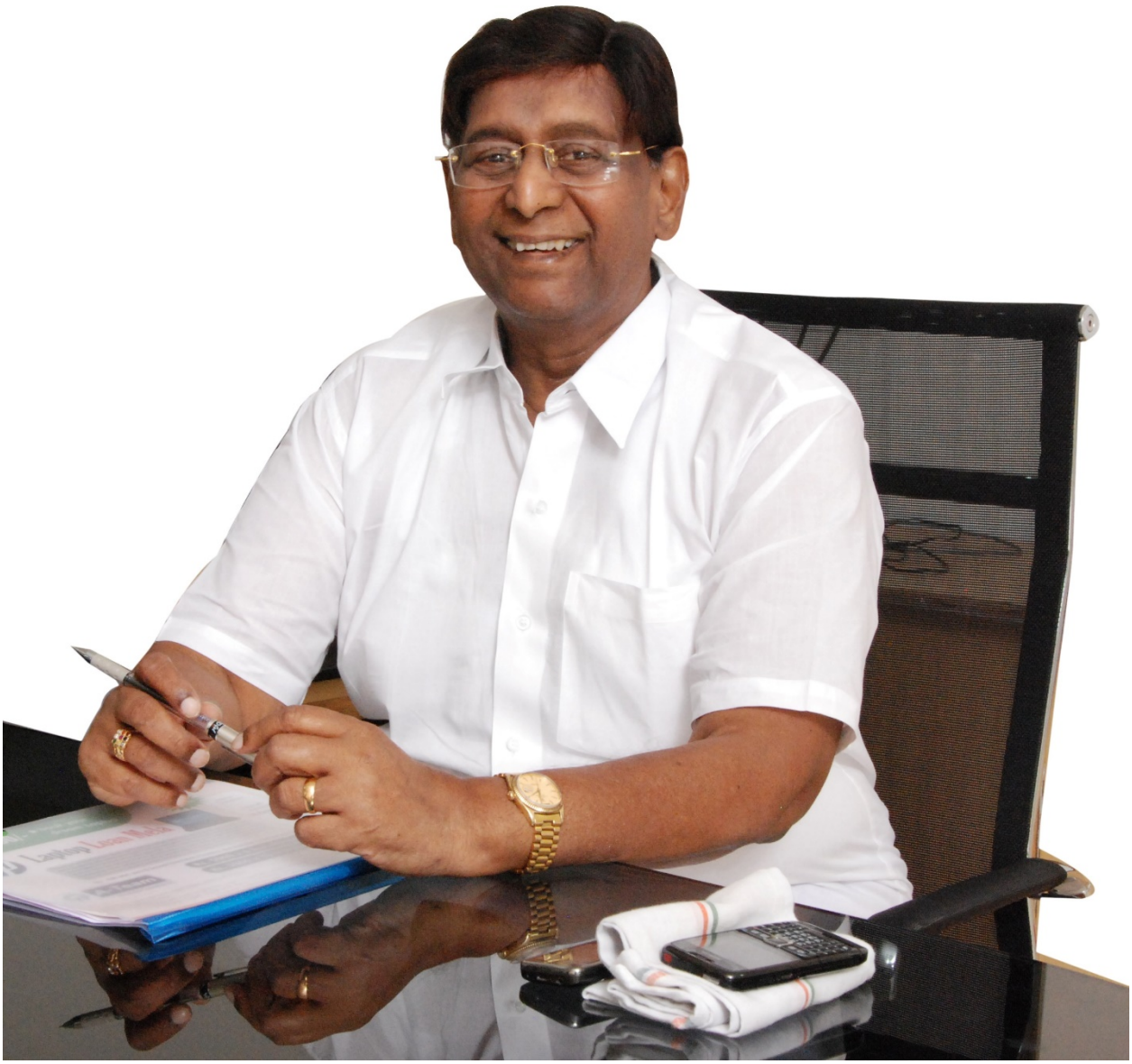


Dr. JKK.MUNIRAJAH., M.Tech., (Bolton)., D.Litt.,

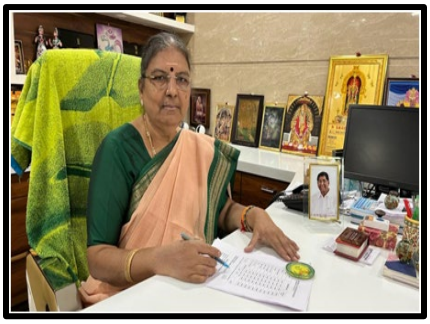
Founder Chairman,

Annai JKK Sampoorani Ammal Charitable Trust,

Komarapalayam.

Chairman Message

Shrimathi. Vasanthakumari Munirajah
Chairman / Managing Trustee
Annai JKK Sampoorani Ammal Charitable Trust,
Komarapalayam, Namakkal. Dt. Tamilnadu.



It is with profound happiness that I extend the greet to all the distinguished speakers, academicians, researchers, and students who are part of the One-Day National Seminar on *"The Impact of AI on Drug Design and Optimization of Emerging Analytical Technologies in Pharmacy."* As Correspondent of this institution, I am proud to witness the organization of a seminar that addresses such a contemporary and impactful theme in pharmaceutical sciences.

Artificial Intelligence is bringing about a revolution in healthcare and drug discovery. By applying advanced algorithms and computational models, researchers are now able to predict molecular interactions, optimize drug candidates, and accelerate the discovery of new therapies with greater precision. This transformation not only reduces the time and cost involved but also promises more effective treatments for patients worldwide.

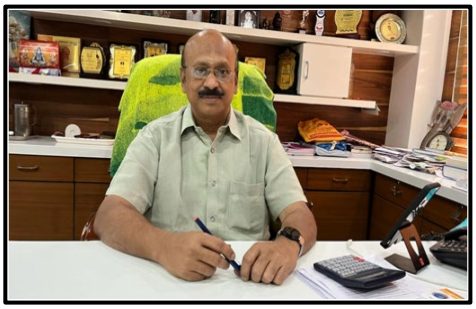
Equally significant are the contributions of modern analytical technologies. High-throughput screening, automation, and AI-enabled data analysis have elevated the standards of pharmaceutical research and practice. These tools are helping scientists ensure accuracy, safety, and reliability, thereby reinforcing the quality and integrity of healthcare solutions. The convergence of AI and emerging technologies is undoubtedly shaping the future of the pharmacy profession.

This seminar provides a meaningful platform for knowledge-sharing, dialogue, and collaboration among professionals and young learners. I am certain that the discussions will encourage innovative thinking, inspire research initiatives, and nurture the scientific spirit among participants.

I take this opportunity to congratulate the Organizing Committee for their dedicated efforts in arranging this academic event and for selecting a theme of such importance. I extend my best wishes for the seminar's grand success and for the active and fruitful participation of all delegates.

Correspondent Message

Mr.J.K.M. Jayaprakash
Correspondent
JKKMMRF's Annai JKK Sampoorani Ammal College of Pharmacy, Komarapalayam
Namakkal District.
Tamil Nadu.



It is a matter of great pride to pen down a message for the Pharmacy Magazine of JKKMMRF's Annai JKK Sampoorani Ammal College of Pharmacy. My heart fills with immense pleasure as I witness the steady progress and remarkable achievements of our institution.

Education is not merely about the subjects taught in schools and colleges; it is a lifelong journey that becomes truly meaningful when enriched by experiences. Creativity and imagination are the foundations that help students grow into innovative and productive professionals.

We are with a talented, dedicated, and caring team of faculty members who work tirelessly to nurture the potential of every student. Since our inception in 1987, our teachers have been the backbone of this institution, ensuring that it remains a place of excellence in pharmacy education.

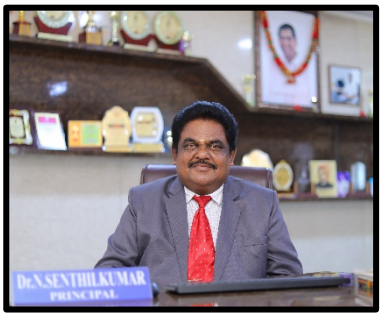
The smooth transition from physical classrooms to virtual learning during challenging times stands as a testimony to our core philosophy of investing in human resources. With continuous training and preparedness, our faculty members not only conducted online classes effectively but also participated in virtual conferences to stay updated with global advancements.

The college magazine serves as a platform for students to express their creative pursuits, fostering originality of thought, imagination, and innovation. The contributions of our students reflect their vibrant ideas and their commitment to academic and personal growth.

I extend my warm wishes to the Principal, the Editorial Team, and all our students on the publication of this magazine. May this journey of excellence continue with greater passion and achievements in the years to come.

Principal cum Convener Message

Dr.N.Senthilkumar M.Pharm., Ph.D.,
Principal, JKKMMRF's Annai JKK Sampoorani Ammal College of Pharmacy, Komarapalayam
Namakkal District.
Tamil Nadu



I am delighted to extend my heartfelt greetings to all the delegates, resource persons, faculty members, and students participating in the One-Day National Seminar on *"The Impact of AI on Drug Design and Optimization of Emerging Analytical Technologies in Pharmacy."*

AI has emerged as a powerful tool in drug discovery and development, offering innovative approaches to identify, design, and optimize therapeutic molecules with remarkable speed and accuracy, AI is transforming the drug development pipeline and redefining modern healthcare.

With advanced spectroscopic techniques, automation platforms, and AI-assisted data analysis, researchers can now ensure greater precision, reproducibility, and quality in their work. These technologies, when combined with AI, are not only accelerating the pace of research but also ensuring safer and more effective medicines for society.

This seminar offers an invaluable opportunity for students, researchers, and academicians to exchange ideas, gain new insights, and engage with experts in the field. Such academic interactions will inspire innovation, foster research collaborations, and encourage the younger generation to embrace cutting-edge technologies in pharmacy.

I take this opportunity to congratulate the Organizing Committee for selecting such a forward-looking theme and for their dedicated efforts in bringing together eminent speakers and enthusiastic participants. I wish the seminar grand success and hope it paves the way for further advancements in pharmaceutical sciences.

Co-convener Message

Dr.T.Venkatachalam M.Pharm., Ph.D.,
Professor & HOD, Department of Pharmaceutical Chemistry

It is with great pleasure that I extend my warm greetings to all participants of the one-day national seminar on *"The Impact of AI on Drug Design and Optimization of Emerging Analytical Technologies in Pharmacy.* "I feel privileged to be part of such a timely and intellectually enriching initiative.

Artificial Intelligence has emerged as a transformative force across scientific domains, and pharmacy is no exception. In the field of drug design, AI-driven models are enabling researchers to predict molecular interactions, optimize lead compounds, and accelerate the discovery pipeline with unprecedented efficiency

This seminar provides an excellent platform for scholars, researchers, and professionals to deliberate on these vital advancements, exchange insights, and foster collaborative research. I sincerely believe that the discussions and interactions during this program will inspire innovative thinking and contribute significantly to academic growth and industrial applications.

I congratulate the organizing team for choosing such a forward-looking theme and for creating a forum that bridges knowledge with practice. I extend my best wishes for the grand success of this seminar and for the fruitful participation of all delegates.

Organizing Secretory Message

Dr. P. Kalaiselvi M.Pharm., Ph.D.,
Professor & HOD, Department of Pharmaceutical Analysis

"I am truly delighted to extend my warm greetings to all participants of this one-day seminar on *"The Impact of AI on Drug Design and Optimization of Emerging Analytical Technologies in Pharmacy."* This event addresses a subject of tremendous contemporary relevance, as the pharmaceutical sciences enter a new era driven by artificial intelligence and advanced analytics.

The integration of AI into drug discovery is revolutionizing the way molecules are identified, screened, and optimized.

By harnessing big data, AI is helping to decode complex biological interactions, reduce costs, and shorten development timelines—ultimately benefitting patients through faster access to safe and effective medicines.

This seminar provides a valuable platform for academicians, researchers, and industry professionals to exchange ideas, share research insights, and envision the future of pharmacy in the age of AI. I am confident that the deliberations will inspire meaningful collaborations and open new directions for pharmaceutical research and practice.

I wish the seminar great success and all participants a rewarding learning experience.

Professor

Dr. K. Sumathi M.Pharm., Ph.D.,
Professor, Department of Pharmaceutical Chemistry

I am delighted to extend my cordial greetings to all participants of the One-Day National Seminar on *"The Impact of AI on Drug Design and Optimization of Emerging Analytical Technologies in Pharmacy."* It is an honor to contribute to this program as both an Editorial Board member

This academic initiative is both timely and highly relevant, as it addresses one of the most transformative developments shaping the future of pharmaceutical sciences.

Artificial Intelligence is redefining the way new drugs are designed and developed. Through advanced computational tools, machine learning algorithms, and predictive modeling, AI is enabling researchers to identify potential drug candidates with remarkable precision, optimize their therapeutic profiles, and significantly accelerate the discovery pipeline.

This seminar provides an excellent opportunity for scholars, professionals, and students to share expertise, engage in meaningful discussions, and explore new research directions. I strongly believe that the deliberations will ignite innovative ideas, inspire collaborations, and encourage young researchers to embrace technology-driven advancements in pharmacy.

I sincerely appreciate the efforts of the organizers for bringing forward such a progressive theme and providing a platform for knowledge sharing. I wish this seminar great success and trust that it will leave a lasting impact on all participants.

Best Wishes Messages from secretary APTI -TN Branch.

Dr. R. Sambath Kumar M.Pharm., Ph.D.,
Principal, The Erode College of Pharmacy, Erode
Secretary, APTI – Tamil Nadu Branch

On behalf of the Association of Pharmaceutical Teachers of India (APTI) – Tamil Nadu Branch, I extend my heartfelt wishes for the successful conduct of the One Day Seminar on "Impact of Artificial Intelligence in Drug Design and Optimization of Emerging Analytical Technology in Pharmacy."

This is indeed a highly relevant and visionary theme that reflects the future direction of pharmaceutical sciences. Artificial Intelligence and advanced analytical technologies are reshaping drug discovery, development, and quality assurance, creating enormous opportunities for both academia and industry.

I sincerely appreciate the initiative of the organizers in bringing such an important topic to the academic platform. I am confident that this seminar will provide deep insights to the faculty members, research scholars, and students, and inspire them to embrace modern computational tools, data-driven research, and cutting-edge analytical methodologies.

To the students, I wish that this seminar motivates you to acquire interdisciplinary skills and prepare yourselves for the evolving role of pharmacists in healthcare, research, and innovation.

On this special occasion, I convey my best wishes to the resource persons, organizers, and participants for a fruitful and knowledge-enriching experience. May this event pave the way for many more academic advancements and collaborative opportunities in the field of pharmacy.

Best wishes from Guest of Honor

Prof. Dr. G. Arunachalam, M.Pharm., Ph.D., FIC,
Principal of PGP College of Pharmaceutical Science and Research Institute, Namakkal

Prof. Dr. G. Arunachalam, M.Pharm., Ph.D., FIC, is a senior academician and researcher in **Pharmacognosy and Phytochemistry** with more than **20 years of academic and research experience**. He obtained his **Ph.D. in Pharmacy from Jadavpur University, Kolkata**, and has served as **Professor and Principal** at leading pharmacy institutions in Tamil Nadu.

He has published **over 75 research papers**, contributed **book chapters**, and presented widely at **national and international conferences**. His research is centered on **ethnomedicine, phytochemical studies, and the therapeutic applications of medicinal plants**, with a notable contribution in developing and promoting **Aloe vera-based remedies**.

Resource person

Dr. S. Jubie, M.Pharm., Ph.D.
Associate Professor, Department of Pharmaceutical Chemistry, JSS College of Pharmacy, Ooty – JSS Academy of Higher Education & Research, Mysuru

Dr. S. Jubie is a distinguished academician and researcher with over **23 years of dedicated service in pharmaceutical education and research**. She obtained her **B.Pharm (1999)** from SB College of Pharmacy, **M.Pharm (2002)** from KM College of Pharmacy, where she was honored as the *Best Outgoing Student*, and later earned her **Ph.D. (2014)** from JSS Academy of Higher Education & Research, Mysuru.Her **core research interests** include the discovery and development of novel chemical entities for **cancer therapy**, exploration of **drug repurposing and scaffold modification**, and applications of **in-silico approaches** in drug discovery. She has made remarkable contributions with **129 publications** in reputed national and international indexed journals (cumulative impact factor: **177.85**), along with more than **2071 citations** and an **H-index of 23 (Google Scholar)**.

Dr. Jubie has demonstrated strong innovation, with **7 Indian patents granted** and **7 more filed**, in addition to authoring **5 books and 8 book chapters**. She has successfully secured **several prestigious research grants**, including projects from **AICTE, ICMR, DST, JSSAHER**, and an **international grant from Shaqra University, Saudi Arabia**. Her research efforts have also been recognized with **DST and ICMR travel grants** from the Government of India.

As a committed **academic leader and mentor**, she has guided **6 Ph.D. scholars**, along with **15 M.Pharm. and 15 B.Pharm. students**, and currently supervises **7 Ph.D. candidates**. She has actively engaged in over **60 conferences** (19 international, 42 national) and delivered invited talks in **more than 40 scientific events and webinars**.

Beyond research, Dr. Jubie plays a pivotal role in **academic administration** as the **Academic Coordinator**, significantly contributing to institutional quality initiatives through **NAAC, NBA, NIRF, and ACPE accreditation processes**. She is also actively involved in organizing **national conferences, webinars, and community health awareness programs** in collaboration with government and professional bodies. She holds **life memberships** in leading professional associations, including **IPA, APTI, APP, SBTI, IFERP**, and is an **Associate Fellow of the Antiviral Research Society, India**.Her **excellence has been recognized through numerous awards**, such as:

- *Pharmacy Woman of the Year – 2023 (APTI Central)*
- *Pharmacy Woman Teacher Award – 2023 (APTI Tamil Nadu)*
- *Best Teacher Award – 2022 (JSS College of Pharmacy, Ooty)*
- *Best Researcher Award – 2019*
- *Young Researcher Award – 2019, Young Performer of the Year – 2020 (APP)*
- *Research Excellence Award – 2025 (JSSAHER)*
- **Service:** Academic Coordinator, active in NAAC, ACPE, NBA, NIRF committees

Resource person

Dr. K. Manikandan, M.Pharm., Ph.D.
Professor & Head, Department of Pharmaceutical Analysis
SRM College of Pharmacy, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu

Dr. K. Manikandan has over **16 years of academic and research experience** in pharmaceutical analysis, specializing in **method development, validation of marketed formulations, chemometric tools, and bioanalytical techniques**. He earned his **B.Pharm (2006)** from The Tamil Nadu Dr. MGR Medical University, **M.Pharm in Pharmaceutical Analysis (2009, Gold Medalist)**, and **Ph.D. (2018)** from SRM Institute of Science and Technology.

As a faculty member since 2009, he has handled **undergraduate, postgraduate, and Pharm.D. Courses** in pharmaceutical analysis and modern analytical techniques. He has guided **8 Ph.D. projects (1 completed, 7 ongoing)**, **32 postgraduate**, and **12 undergraduate projects** in various analytical and bioanalytical domains. His **research expertise** spans **UV/FT-IR spectroscopy, HPLC, HPTLC, LC-MS, Design of Experiments (DOE), chemometric/statistical analysis, method optimization, and bioanalytical techniques (SPE, LLE)**. He is also skilled in advanced software tools such as **Design Expert, SPSS, GraphPad, and Camag Unscrambler X**. Dr. Manikandan has contributed extensively to **scientific publications** with numerous research papers in **Q1–Q4 indexed journals** across analytical, pharmaceutical, and nanotechnology fields. He has **patents to his credit**, including granted patents for **Mini HPLC apparatus (2024)**, **Stress Detection Treadmill (2023)**, and **Portable UV-C disinfection device (2023)**, alongside several filed/published patents on novel analytical techniques, herbal formulations, and AI-based pharmaceutical applications.

His **achievements** include:

- *Best Teacher Award* (Asian Education Awards, 2021)
- *Dr. P.D. Sethi Annual Award – 2011* (Appreciation Certificate for HPTLC method publication)
- Multiple **Gold Medals for Best Research Papers** (SRM Research Day – 2016, 2017, 2018)
- *First Prize for PG Project Guidance* (Tamil Nadu Pharmaceutical Welfare Association, 2014)
- Repeated **journal publication awards** from SRM (2011–2014)

Dr.K Manikandan is an **active member of APTI** and a **Registered Pharmacist with the Tamil Nadu Pharmacy Council**. He has organized and participated in numerous **national and international conferences, workshops, and webinars**, with a strong focus on analytical method innovation, QbD strategies, regulatory sciences, and advanced pharmaceutical technologies.

Resource person

Dr. P. Manoj Kumar, M.Pharm., Ph.D.
Professor, Lisie College of Pharmacy, Kochi, Kerala

Dr. P. Manoj Kumar has over **two decades of academic and research experience** in pharmaceutical sciences. He began his career in 1998 with industry and teaching positions before serving as **Assistant Professor (2001–2010)** at Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore, and later as **Principal (2010–2022)** of The Dale View College of Pharmacy, Trivandrum. He currently serves as **Professor at Lisie College of Pharmacy**.

He earned his **B.Pharm (Bangalore University)**, **M.Pharm in Pharmaceutical Chemistry (The Tamil Nadu Dr. M.G.R. Medical University, First Class with distinction)**, and **Ph.D. in Pharmaceutical Sciences (The Tamil Nadu Dr. M.G.R. Medical University)**.

Dr. Manoj's **research contributions** focus on **medicinal chemistry, heterocyclic compound synthesis, phytochemical studies, antioxidants, antimicrobials, anticancer agents, and nanotechnology-based drug delivery**. He has **authored 30+ research publications** in reputed journals including *European Journal of Medicinal Chemistry, Acta Pharmaceutica, Indian Journal of Pharmaceutical Sciences, Med Chem Res, and Food and Chemical Toxicology*. His work spans **heterocyclic derivatives, phytopharmacology, nanoformulations for liver-targeted therapy, and novel drug design**.

As a **mentor**, he has guided numerous **M.Pharm dissertations** and **co-supervised Ph.D. scholars** on medicinal plants, phytopharmacology, and nanoparticle-based drug delivery systems. He is also an **approved Ph.D. guide at Kerala University of Health Sciences (KUHS)** and has supervised research under Shri JJT University, Rajasthan.

He is a **frequent resource person**, invited as a **speaker at 15+ national and international conferences, seminars, and workshops**, covering areas such as **spectroscopy, drug discovery, heterocyclic chemistry, molecular modeling, nanomedicine, and pharmaceutical education**. He has also chaired scientific sessions and served as evaluator in reputed academic events.

His **professional contributions** extend beyond teaching and research—he has served as **KUHS inspector**, **Board of Studies member**, **external faculty for MG University**, and **nominee in CPCSEA (animal ethics committee)**. He has also contributed to **NAAC accreditation and educational reforms**.

Notably, he received recognition for **Best Educational Tutorial Video** during the *International Educational E-Content Festival 2020* and has been honored for his service in pharmacy education.

Resource person

Prof. N. Kannappan, M.Pharm., Ph.D.
Professor of Pharmaceutical Chemistry, College of Pharmacy, Mother Theresa Postgraduate & Research Institute of Health Sciences (MTPG & RIHS), Puducherry

Prof. N. Kannappan is an accomplished academician and researcher with over **three decades of experience** in pharmaceutical education, administration, and research. He obtained his **B.Pharm (1986, First Class)** and **M.Pharm in Pharmaceutical Chemistry (1988, First Class with Distinction)** from The Tamil Nadu Dr. M.G.R. Medical University, and earned his **Ph.D. in Pharmaceutical Sciences (1996)** from the same university.

He began his academic career in 1989 and has since served in **progressive leadership roles**: Lecturer, Reader, Professor, and Head of Department. He is currently a **Professor of Pharmaceutical Chemistry at MTPG & RIHS, Puducherry**, where he has been instrumental in **curriculum development, quality assurance, NAAC/NBA accreditation processes, and postgraduate/doctoral research guidance**.

Prof. Kannappan's **research expertise** covers **drug design, medicinal chemistry, synthetic chemistry, spectroscopy, phytochemistry, and nanomedicine**. He has **published over 120 research papers** in reputed national and international journals, authored **textbooks, book chapters**, and presented at **numerous conferences**. His scholarly contributions extend to **editorial board memberships and peer review** for pharmaceutical journals.

As a mentor, he has **supervised multiple Ph.D. and M.Pharm scholars**, producing significant research outputs in **heterocyclic compound synthesis, bioactive natural products, analytical method development, and novel drug delivery systems**. Many of his mentees hold key positions in academia, research, and industry.

He has also been a **resource person and invited speaker** at **seminars, workshops, faculty development programs, and international conferences**, delivering lectures on **spectroscopic techniques, drug discovery, pharmaceutical education, and research methodology**.

His **professional affiliations** include memberships in organizations such as **AAPT, IPA, APTI, ISTE**, and various scientific societies. Beyond research, he has significantly contributed to **institutional administration, policy framing, and student mentorship**, making him a respected figure in pharmacy education.

Prof. Kannappan's career reflects a deep commitment to **excellence in teaching, innovation in research, and service to the pharmacy profession**, establishing him as a **distinguished academic leader in pharmaceutical sciences**.

Scientific Committee:

1. Dr.E.Thilagam., M.Pharm., Ph.D., Vice Principal., Department of Pharmacognosy.
2. Mr.R.Vijay Amirtharaj., M.Pharm., Professor, Department of Pharmaceutical Analysis.
3. Dr.K.Sumathi. M.Pharm., Ph.D., Professor, Department of Pharmaceutical Chemistry.
4. Dr.A.Chitra., M.Pharm., Ph.D., Associate Professor, Department of Pharmaceutical Chemistry.
5. Dr.M.Chitra., M.Pharm., Ph.D., Associate Professor, Department of Pharmaceutical Analysis.
6. Mr.V.Suresh Kannan., M.Pharm.,(Ph.D)., Associate Professor, Department of Pharmaceutical Chemistry.
7. Mrs.P.Gayathiri., M.Pharm., Assistant Professor, Department of Pharmaceutical Analysis.
8. Mrs.P.Ragavi., M.Pharm., Assistant Professor, Department of Pharmaceutical Chemistry.
9. Mrs.K.S.Koshila., B.Pharm., Lecturer , Department of Pharmaceutical Chemistry.

EDITOR

1. Dr. N.Senthilkumar., M.Pharm, Ph.D., Principal.

CO-EDITOR

1. Dr.T.Venkatachalam. M.Pharm., Ph.D., Professor & HOD , Department of Pharmaceutical Chemistry.
2. Dr.P.Kalaiselvi, M.Pharm., Ph.D., Professor & HOD, Department of Pharmaceutical Analysis.

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