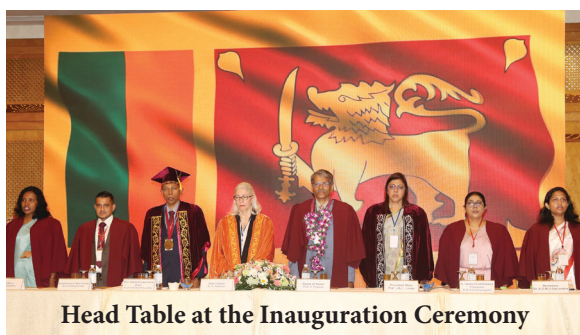


SECOND INTERNATIONAL CONFERENCE ON FRONTIERS IN CHEMICAL TECHNOLOGY (FCT-2) 2024

details on page 12



Head Table at the Inauguration Ceremony



Welcome Speech and Presidential Address by Prof. Namal Priyantha

NEW PRESIDENT OF THE INSTITUTE OF CHEMISTRY CEYLON



Professor Janitha A Liyanage was elected as the 87th President of the Institute of Chemistry Ceylon at the Annual General Meeting held on 20th June 2024. Induction of the President along with the Annual Dinner of the Institute of Chemistry Ceylon, 2024 & Banquet of the 2nd International Conference on Frontiers in Chemical Technology held on 20th June 2024 at the Hotel Marino Beach, Colombo, where Professor Liyanage was presented with the President's Medal by the outgoing President, Prof. Namal Priyantha. The Chief Guest for the event was Hon. (Dr.) Ramesh Pathirana, Minister of Industries and Minister of Health while Prof. Sampath Amaratunge, Chairman, University Grants Commission was the Guest of Honour. The occasion was

graced by Past Presidents of the Institute, Alumni and Council Members, Members of IChemC as well as the participants of the FCT2.



Chief Guest, Dr. Ale Palermo



Guest of Honor, Prof. Sabu Thomas



Participants

Plenary & Keynote Speakers



Prof. Dinesh Mohan



Prof. P. A. N. Punyasiri



Prof. K.M. N. de Silva



Dr. Jeyanny Vijayanathan



Prof. Channa De Silva



Prof. Sakunthala Yatigammana Ekanayake



Prof. Sameera R. Samarakoon



Prof. Terrence Madhujith

GUEST EDITORIAL

**THE RISE OF AI IN ANALYTICAL CHEMISTRY:
PROMISES, PITFALLS, AND THE PATH FORWARD****M. N. Kaumal**

*Professor in Chemistry, Department of Chemistry, University of Colombo
CEO, Colombo Science and Technology Cell, Faculty of Science, University of Colombo
Director, University Business Linkage, University of Colombo*



The field of analytical chemistry has long relied on human intelligence, detailed procedures, and rigorous validation to ensure the reliability and reproducibility of its methods. However, the development and rise of artificial intelligence (AI) and machine learning (ML) are now transforming this landscape, providing new possibilities to streamline, accelerate, and enhance analytical workflows. AI-powered tools are increasingly adopted by analytical chemists to automate method optimization and extract insights from complex data sets. However, as these technologies become more deeply integrated, critical questions have been raised regarding their reliability, transparency, and potential to introduce problematic biases.

The use of AI-driven analytical methods is more common these days due to recent developments in AI. Machine learning algorithms can quickly explore a wide range of parameters, allowing them to decide the optimum conditions for the method. This automation allows to perform a detailed analysis that would be time consuming for human researchers to do manually. Use of the power of these algorithms to process data and spot patterns, analytical chemists can speed up the development and improvement of methods, opening new possibilities that were once difficult or impossible to achieve with traditional approaches. AI has the potential to significantly accelerate methods development, bringing new analytical capabilities to overcome modern challenges. By leveraging AI-based data analysis, researchers can uncover hidden patterns and connections within complex data, potentially revealing insights that might be missed by even the most experienced analysts.

For example, in the field of metabolomics, AI has shown promise in identifying diagnostic biomarkers and elucidating the underlying biochemical pathways involved in disease.

Similarly, in environmental analysis, machine learning models have demonstrated the ability to predict the occurrence and fate of emerging contaminants with greater accuracy than traditional approaches. These are just a few illustrations of the transformative potential of AI in analytical chemistry. However, the integration of AI in analytical chemistry is not without its challenges and pitfalls. One of the key concerns is the 'black box' nature of many AI models, where the decision-making process is not always transparent or easily interpretable.

However, as these technologies become more deeply embedded, concerns have arisen about their reliability, transparency, and potential biases. Unlike traditional analytical methods, which rely on well-established principles and can be thoroughly validated, many AI-driven techniques operate as "black boxes," with the underlying decision-making processes obscured from the user. This lack of transparency can make it difficult to assess the robustness and trustworthiness of the results, particularly in mission-critical applications where decisions have far-reaching consequences.

Moreover, the performance of AI models is heavily dependent on the quality and representativeness of the training data used to develop them. If the data set is biased or incomplete, the resulting models may perpetuate and amplify these biases, leading to skewed or unreliable outputs. This is a particularly salient issue in analytical chemistry, where historical data may reflect demographic and geographic biases of past research efforts.

Furthermore, the complexity of modern analytical instrumentation and the vast volume of data it generates can pose significant challenges for AI-based approaches. As the size and dimensionality of data sets continue to grow, the computational resources and sophisticated algorithms required to extract meaningful insights become increasingly demanding. This can create barriers to widespread adoption, especially in resource-constrained environments.

To address these concerns, the analytical chemistry community must work proactively to establish robust guidelines and best practices for the development, validation, and deployment of AI-driven analytical methods. This should include the development of standardized benchmarking data sets, the implementation of rigorous testing and validation protocols, and the cultivation of

interdisciplinary collaborations between analytical chemists, data scientists, and domain experts. Additionally, it is crucial that the underlying principles and decision-making processes of AI-powered analytical tools are made as transparent as possible, allowing users to understand and interrogate the reasoning behind the outputs.

One promising approach is the adoption of "explainable AI" (xAI) techniques, which aim to make the decision-making processes of AI models more transparent and interpretable. By incorporating these methods into analytical workflows, researchers can gain deeper insights into the underlying factors driving the AI's outputs, enabling them to more effectively assess the reliability and trustworthiness of the results. Additionally, the integration of human oversight and domain expertise is crucial to ensure that AI-driven analytical methods are aligned with the broader context and ethical considerations of the field.

Additionally, the integration of AI and ML with traditional analytical methods can help to create robust, hybrid approaches that leverage the strengths of both human and machine intelligence. By combining the speed and pattern recognition capabilities of AI with the domain expertise and mechanistic understanding of analytical

chemists, it may be possible to develop analytical tools that are more reliable, transparent, and less prone to bias.

Finally, as the use of AI in analytical chemistry becomes more widespread, the community must engage in ongoing dialogue and collaboration to address emerging ethical and societal concerns. Questions of data privacy, algorithmic fairness, and the potential for AI-driven analytical methods to perpetuate or exacerbate existing inequities must be proactively addressed through multistakeholder collaboration and the development of appropriate governance frameworks.

The integration of AI and machine learning into analytical chemistry holds immense promise, offering the potential to revolutionize the way we develop, deploy, and interpret analytical methods. However, realizing this potential will require a concerted effort to address the reliability, transparency, and bias-related challenges that currently accompany these technologies. By embracing a collaborative, multidisciplinary approach and upholding the highest standards of rigor and ethics, the analytical chemistry community can harness the power of AI while safeguarding the integrity and trustworthiness of analytical science.

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## CCS NEWS

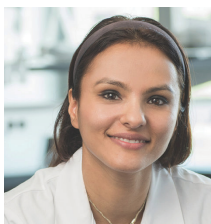
### COLLOQUIUMS



The CCS Colloquium series namely "Solid state NMR: an overview" was conducted successfully by **Prof. Mohamed Ismail Wazeer** on the 5<sup>th</sup> of March 2024 at the PPGL Siriwardene auditorium at IChemC. The talk encompassed the essence of solid state NMR and its applications, which

captured the interest of the audience. A token of appreciation was given by Dr. Keerthi Attanayaka to Prof. Wazeer to conclude the event.

The development of novel functional nucleic acid materials to elucidate cell receptor activity by an esteemed alumna, **Prof. Prabodhika R. Mallikaratchy**, Medical Professor at the Department of Molecular, Cellular & Biomedical Sciences, The City University of New York School of Medicine, on Nov 28. The event began with a memorable fellowship with academics, followed by an insightful colloquium on advancing receptor biology with novel nucleic acid materials. The session captivated undergraduates and academics with cutting-edge insights, fostering connections and inspiring innovative ideas.



### SEMINARS

The seminar "Graphene based Nanotechnology for Early Cancer Detection" conducted by **Prof. Stephen H. Bossmann** was successfully held on the 23<sup>rd</sup> of January 2024 at the PPGL Siriwardene Auditorium at IChemC. The session encompassed the fascinating field of nanomaterials and their role in the detection of the onset of cancer. The audience consisted of many lecturers and students of CCS, of whom which gained valuable knowledge on this topic. The event wrapped up with a token of appreciation given by Dr. A.A.P. Keerthi, the head of the Department of Allied Sciences of CCS to Prof. Bossmann.





## STUDENT LIFE AT CCS

### GAVEL CLUB

#### CCS Best Speaker Competition

The CCS Best Speaker Competition took place on the 20<sup>th</sup> of May, 2024 at the P.P.G.L. Siriwardene Auditorium. Where the top finalists showcased their public speaking talents. Following an intense preliminary on-line round, the finalists captivated the audience with eloquent speeches on a range of topics. The event culminated with the announcement of the winners in two categories.

#### Winners:

Prepared Speech Section:

- 1<sup>st</sup> Place: Gav. Minanga Minsandi Kumaranayake
- 2<sup>nd</sup> Place: Gav. Sanduni Yaddhegige
- 3<sup>rd</sup> Place: Gav. Oshadhi Malshika

Impromptu Section:

- 1<sup>st</sup> Place: Gav. Sanuga Nanayakkara
- 2<sup>nd</sup> Place: Gav. Minanga Minsandi Kumaranayake
- 3<sup>rd</sup> Place: Gav. Sanduni Yaddhegige

#### 'Exhuma' Movie Night Fundraiser

On the 21<sup>st</sup> of May 2024, the P.P.G.L. Siriwardene Auditorium was transformed into a cinematic experience with the screening of the thriller "Exhuma." This was a fundraiser organized between the Gavel Club of CCS and the Students' Association of CCS. Attendees were on the edge of their seats, captivated by the film's suspenseful plot and unexpected twists. The evening was a thrilling success, fostering a strong sense of community while contributing to the club's ongoing growth.



### BADMINTON CLUB

#### Inter-Level Badminton Tournament



Inter Level Badminton Tournament 2024 was held on 14<sup>th</sup> of May, at Super Sports Badminton Courts, Nawala. Level 3 emerged as the

overall champion, while Level 2 secured the first runner-up position in the tournament. Maneth Nanayakkara (Level 2) and Tharushi Mirihana (Level 3) were awarded as the boys best player and girls best player respectively. Dinuka Jayasinghe (Level 3) earned the most valuable player of the tournament.

#### Annual Tournament between CCS and SLLC

The Annual Badminton Tournament between Sri Lanka Law College (SLLC) and the College of Chemical Sciences (CCS) was held on the 21<sup>st</sup> of June 2024 at Super Sports Badminton Courts, Nawala. SLLC emerged as the overall champion.



### FOOTBALL/FUTSAL CLUB

#### Interlevel Futsal Tournament – IFT 2024

The 2<sup>nd</sup> Inter Level Futsal Tournament – IFT 2024 was successfully held on the 3<sup>rd</sup> of May, 2024, at the Misfits Arena, Boralesgamuwa. This event saw the rise of fresh talent and new faces, demonstrating the growth of the futsal club since its inception. The event concluded with the overall championship being clinched by Level 3 (42<sup>nd</sup> Batch), after triumphing both in the boys category as well as the girls category while the 1st runners up position was secured by Level 2 (43<sup>rd</sup> Batch).



#### University Futsal Showdown – UFS 2024

The Futsal Club of CCS participated in UFS '24; an Inter-University Tournament organized by Beyond Boundaries Events, held on the 22<sup>nd</sup> of June, 2024, at Club Fusion, Boralesgamuwa. This was the first time the CCS futsal team played in an inter university competition which helped strengthen the player's sportsmanship, skills and sense of teamwork. It was a great opportunity for the players to gain experience in a more competitive landscape that will certainly help propel them to future success. The club was represented by two boys' teams and one girls' team and the girls' team advance to the semi-finals, demonstrating exceptional skill and determination.



## CRICKET CLUB

### CCS vs SLLC Match

A T20 match between the Sri Lanka Law College and College of Chemical Sciences was successfully held on the 30<sup>th</sup> of June, 2024, at KDU Cricket Grounds at Rathmalana. The match with SLLC taking home the win by 34 runs.



## BASKETBALL CLUB

### Interlevel Basketball Tournament

The Inter-level Basketball 3x3 tournament was held on the 8<sup>th</sup> of June, 2024 at the Nalanda College Basketball Court. The Alumina team displayed impressive performance, clinching the championship, while the determined Level 2 team fought their way to the runners-up spot in the men's division. The women's competition was equally intense, with the Level 4 team seizing the top honor, as Level 3 put up a valiant effort to finish second. In addition to the main matches, a few individual competitions were held. Hetti Kankanamge Mihin Chanuka emerged as the winner of the Three-Point Competition, while Keshiah Astrid Fernandez claimed victory in the Free Throw Competition.



### Friendly match against Sri Lanka Law College.

CCS basketball also participated in a memorable friendly match against Sri Lanka Law College on the 23<sup>rd</sup> of June at the Nalanda College Basketball Court. The game was hard-fought and intense, ending in a well-deserved tie that left both teams proud of their performance.

### Inter-University Basketball Competition

Adding to the season's excitement, the CCS boys' and girls' teams showcased their talent in the inter-university basketball tournament organized by APIIT. It was held on the 31<sup>st</sup> of August 2024 at the Nalanda College Basketball Court. The participation reflected CCS's growing prominence in the university basketball arena.

## IFTAR CELEBRATION

The Institute of Chemistry Ceylon marked the holy month of Ramadan by hosting an Iftar on the 8<sup>th</sup> of April at the SLNSS Building through the joint efforts of the Students' Association of CCS and Rotaract Club of CCS. The event was honored by the presence of AshSheikh Ahmadh Yasir Ismail, who delivered an enlightening talk about the significance of Ramadan. The gathering concluded with participants coming together to share a meal in the spirit of unity.



## EASTER CELEBRATION

On the 9<sup>th</sup> of April 2024, students gathered at the P.P.G.L. Siriwardene Auditorium to celebrate Easter organized by the teamwork of the Students' Association of CCS, the Gavel Club of CCS, and the Music Circle of CCS. The celebration featured a heartfelt sermon by Fr. Ranjuna Perera, accompanied by soul-stirring hymns performed by the Music Circle of CCS. The event concluded with a fun-filled Easter egg hunt, organized by the Gavel Club of CCS.



## CCS AVURUDU SIRI 24

The Social Affairs Committee of the Institute of Chemistry Ceylon, together with the Students' Association of the College of Chemical Sciences, hosted a vibrant New Year celebration at the Faculty of Indigenous Medicine Ground on April 30<sup>th</sup>, 2024. The event opened with a welcome dance organized by the students from all four



levels and a delightful spread of Avurudu kavili. The committees arranged many fun traditional games, special favorites such as kotta pora, Kana mutti bindeema, Banis Kaema and many more. The attendees were treated to the beautiful melodies and kavi sung by the institute's very own talent. The festival lasted all night finally ending with an energetic DJ performance and dancing capturing the true spirit of the festivities.



## SENEHASA

In commemoration of Vesak, the Student's Association along with the Music Circle of CCS organized a meaningful evening at Victoria Homes on the 8<sup>th</sup> of May, 2024. The Music Circle of CCS performed for the residents, while students distributed snacks and tea, provided through donations from the IChemC community. On the 29<sup>th</sup> of May, an ice cream dansala was held in front of the institute, attracting a large crowd creating an atmosphere of excitement and laughter, spreading joy throughout the gathering.



## CONCEPT OF I

"Concept of I" is a series designed by the Students' Association of CCS to help students enhance their soft skills and navigate their academic journey with greater ease. Phase 1, titled "Interviva," was held on the 31<sup>st</sup> of May 2024 at the P.P.G.L. Siriwardena Auditorium. It featured three experienced speakers - Mr. Indoosan Shanthakumaran, Mr. Thisath Alahakoon, and Ms. Randika Malmi. The speakers conducted interviews with students, offering invaluable

advice and sharing key strategies for excelling in interviews. Their guidance provided practical tips on how to confidently navigate the process, leaving a lasting impact on the participants.



Phase 2 of "Concept of I," titled "Eloquence," took place on the 27<sup>th</sup> of June 2024 and the 4<sup>th</sup> of July 2024. The first session featured five distinguished guest speakers - Mr. Namindu, Ms. Shalini Herath, Mr. Niroshan Prabath, Ms. Bimali Kangaraarachchi, and Mr. Subodh Hemathilaka - who provided rich insights drawn from their personal and professional experiences. The second session welcomed six more experts namely, Mr. Lahiri Warnakula from the pharmaceutical industry. Ms. Yasmitha Alahakoon, a research scientist. Ms. Dilshard Perera from the cosmetic industry. Mr. K.R. Dayananda from the spices industry. Mr. Ruwira Kanishka and Mr. Manujith Harinda from the textile industry. They shared their expertise with the students, providing in-depth knowledge and practical insights. Through engaging discussions and real-world examples, they helped students gain a deeper understanding of their field, offering valuable guidance to support their future success. Their mentorship left a lasting impression, inspiring students to pursue their goals with confidence.

## ENTREPRENEURSHIP WORKSHOP

An engaging Entrepreneurship Workshop was held on the 22<sup>nd</sup> of August at the P.P.G.L. Siriwardena Auditorium, organized by the Students' Association with the support of Dr. Dinusha Udukala, to expose students to emerging opportunities in the society. The workshop was enriched by guest speaker Ms. Upeka Thilimali, who offered practical advice and inspiration for the students.





## YOUNG INVENTORS CLUB

### Inauguration

The Young Inventors Club was launched on the 2<sup>nd</sup> of September at the P.P.G.L. Siriwardena Auditorium under the guidance of Dr. Sameera Ranmal Gunatilake. The club's Executive Committee is as follows;

|                   |                                                         |
|-------------------|---------------------------------------------------------|
| President         | - Dovindu Ekanayaka                                     |
| Vice President    | - Dhananjaya Jayasundara                                |
| Secretary         | - Dinara Gunatilake                                     |
| Treasurer         | - Deshan Madhuravinda                                   |
| Director of PR    | - Anudha Nicholas                                       |
| Committee Members | - Keshiah Fernandez<br>Insaf Ifthikar<br>Devindi Perera |

## PADURA 24'

The Saukyadana Unit of CCS, in partnership with the Music Circle of CCS and the Students' Association, arranged a delightful show featuring the talent of the students of CCS. It was organized as a charitable endeavor to collect funds for donations to the Apeksha Cancer Hospital in Maharagama and the Victoria Home for Incurables in Rajagiriya. The event took place on May 26<sup>th</sup> 2024, at the Supplementary Campus Parking Lot.



## SNAPR - PHOTOGRAPHY CLUB

### Wildlife photography workshop

A wildlife photography workshop at the Baddegana Wetland Park was organized by Snapr CCS in collaboration with the Rotaract Club of CCS on April 21<sup>st</sup>, 2024. The workshop was conducted by Mr. Gautham Kumar, a former student of the College of Chemical Sciences and a professional photographer.



## INTRA ESPORTS CLUB TOURNAMENT

The Intra Esports Club Tournament was held on April 19<sup>th</sup>, 2024, at the P.P.G.L. Siriwardene Auditorium. This exciting event brought together club members to showcase their gaming prowess across several popular titles, including Call of Duty Mobile, PUBG, Valorant, and Mobile Legends. Players engaged in intense battles, demonstrating their skills and teamwork as they vied for the championship title. The tournament not only highlighted the competitive spirit of the club but also fostered camaraderie among participants, making it a memorable day for everyone involved.

The winners of each gaming title were as follows;

Call of Duty Mobile: Anudha Nicholas

Valorant : Deshan Madhuravinda

PUBG : Oshan Kaluarachchi

Mobile Legends : Sanduni Wickramasinghe

## THE SOCIETY OF MAGICIANS OF CCS

### The Annual General Meeting of the Society of Magicians

The Annual General Meeting of the Society of Magicians was held on the 29<sup>th</sup> August, 2024 at the Level 4 Hall. It marked the ascension of the new Executive Committee to their positions. The new board members are as follows,

President - Vishwa Samod

Secretary - Dhanuka Dineth

Treasurer - Hasith Kenula

### Open-day Magic show

The Open-Day Magic shows were held on the 6<sup>th</sup> of July 2024 at the P.P.G.L. Siriwardene Auditorium for the newest intake of freshers



at the Institute of Chemistry Ceylon to create an interest and a profile of chemistry among the future generation who are about to enter the College of Chemical Sciences, Institute of Chemistry Ceylon for the new academic year.



### Outdoor Magic Showcase

A magic show was held at St. Bridget's Convent, Colombo, on the 13<sup>th</sup> of June 2024, offering students from grades 6 to 12 a unique blend of entertainment and education. The performances were designed to captivate the audience while also demonstrating key concepts in chemistry in an engaging and accessible manner. Through hands-on participation, students not only enjoyed the magic but also gained valuable insights into scientific principles. The club members used this platform to foster curiosity and inspire a deeper interest in science, leaving a lasting impact on both students and teachers alike. The event was met with overwhelming enthusiasm and received numerous positive reviews, further solidifying the importance of blending education with interactive, fun-filled activities and to explore the wonders of science beyond the classroom.



### Inter-University Magic Competition

The Inter-university magic competition, organized by the Institute of Chemistry Ceylon was held on the 5<sup>th</sup> of May, 2024 *via* Zoom platform, where videos of their magic tricks were submitted by the participants. Out of numerous submissions, the Magicians' Club of CCS secured third place in the competition.



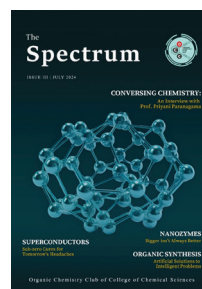
## ORGANIC CLUB OF CCS

### Field Visit to Nature's Beauty Creations Ltd.

On May 7<sup>th</sup>, 2024, the Organic Chemistry Club of CCS organized a field visit to Nature's Beauty Creations Ltd factory located in Millewa, Horana. This provided participants with a unique opportunity to gain valuable insights into the operations of a cosmetic industry that prioritizes sustainable practices. Participants also had the opportunity to explore the factory's endemic medicinal plant garden and plant research center, where they gained extensive knowledge about natural product chemistry.



### The Spectrum Magazine



The 3<sup>rd</sup> edition of the annual magazine of the Organic Chemistry Club of CCS, "The Spectrum" was issued on 27<sup>th</sup> August 2024. This edition featured an exclusive interview with Prof. Priyani Paranagama along with numerous articles on groundbreaking innovations written by CCS undergraduates.

## MEDIA CIRCLE OF CCS

### Compering Workshop

The Media Circle of CCS hosted an insightful and interactive workshop on compering, with renowned Newsfirst journalist Ms. Hashini Pathirana as the guest speaker. Held on June 26<sup>th</sup> 2024, at the P.P.G.L. Siriwardene Auditorium, the event drew over 40 enthusiastic students eager to learn. The workshop was highly engaging, offering practical tips, expert advice, and invaluable insights into the art of compering, leaving participants inspired and better equipped to refine their skills.



### Compering Competition

The compering competition took place in two rounds. The first round, conducted through on-line submissions, ran until July 6<sup>th</sup>, 2024. The second round was held in person on July 9<sup>th</sup>, 2024, at the P.P.G.L. Siriwardene Auditorium. All CCS undergraduates



were invited to participate in the competition. Out of the thirteen contestants, the judges selected three outstanding competitors. The final placements were awarded as follows:

Winner – Micaiah Shonell de Silva

First Runners up – Minanga Minsadi

Second Runners up – Sithma Hewa Waduge

### Annual General Meeting 2024/2025

The 2<sup>nd</sup> Transition Meeting of the Media Circle CCS was successfully held on the 11<sup>th</sup> of July 2024 with the presence of the club mentor Dr. Ranmal Gunathilake. The incoming board of officials were formally inducted for the year 2024/25, ensuring a smooth transition of leadership and setting the stage for a successful year ahead.

The Board of Officials is as follows:

President – Keshiah Fernandez

Secretary – Senaya Muhandiram

Treasurer – Devindi Perera

Vice President – Navodya Hettige

Divisional Heads :

Content Writing – Harini de Silva

Editorial – Dulyana Jayathilake

Graphic Design – Umar Ismail

Public Relations – Anudha Nicholas

Committee Members:

SnapR - Oshadha Gunasekara

Gavel - Sanduni Yaddhegi



### ROTARACT CLUB OF CCS

#### Avurudu Unplugged – Kandy

Avurudu Unplugged marked the second phase of the Unplugged initiative, an Open Mic night hosted at Café Nuwara in Kandy on April 6<sup>th</sup> 2024. The event in Kandy captured the essence of Avurudu, blending rich culture with soulful melodies.

#### Unplugged Yalpanam – Jaffna

The third and final phase of the Unplugged initiative was held on the 24<sup>th</sup> of May, 2024. It was once again an Open Mic Night filled with laughter and music, during which Rotaractors from different areas in Sri Lanka came together.

#### Thuru Savi



The Rotaract Club of Cinnamon Gardens along with the Rotaract Club and Saukyadana Unit of College of Chemical Sciences successfully wrapped up project කුරු සවි on the 7<sup>th</sup> of April 2024 at the Uyanwatte lake, Bandaragama.

Around fifty Kumbuk plants were planted, creating a contribution to preventing soil erosion of the lake bund.

#### Joint General Meeting

The General Meeting for the month of April was held in the format of a joint meeting with the Rotaract Club of Colombo West. It was held on the 30<sup>th</sup> of March 2024 at the P.P.G.L. Siriwardene Auditorium, Institute of Chemistry Ceylon.

#### Project Mask

The Rotaract Clubs of CCS and Colombo North concluded the joint initiative 'Project Mask' on the 30<sup>th</sup> of May 2024. Low-income vendors were given generous contributions which were collected via ticket sales and donations.

#### Beyond the Beach

The Rotaract Club of College of Chemical Sciences in collaboration with Pearl Protectors successfully concluded a beach cleanup 'Beyond the Beach' on the 26<sup>th</sup> of April 2024. The dedicated volunteers were able to remove a staggering 186kg of coastal pollution from the Dehiwala-Mount Lavinia Beach.

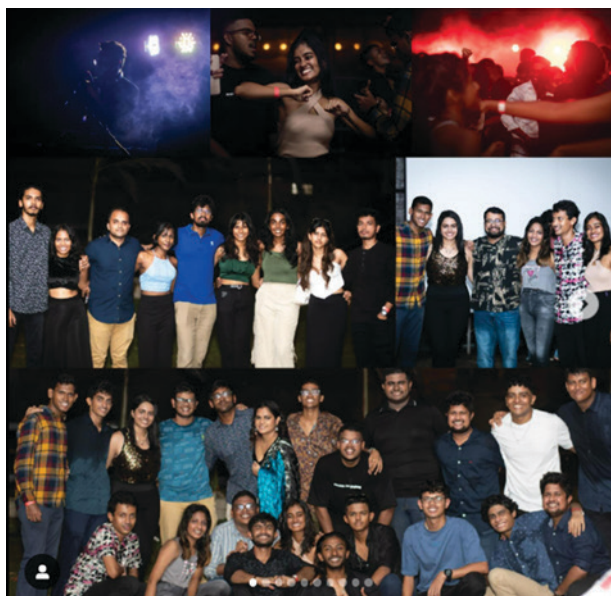
#### Senehasa

'Senehasa', a project initiated by the Rotaract Club of CCS in collaboration with the Indi Foundation in which mother's day was celebrated by gifting hampers to 120 mothers with children battling cancer. The Club was able to partner up with Abans PLC, AIA Insurance, Fems, Velvet and Kumarika to make this venture a resounding success. The strength and resilience of these mothers were truly inspiring!



#### Sun Down

Sun Down was a joint initiative by the Rotaract Clubs of CCS and Colombo West, held on the 1<sup>st</sup> of June, 2024 at the Port View Restaurant, Colombo, during which fellow Rotaractors had the opportunity to mingle and celebrate the end of the Rotary Year 2023-24.



### RACCCS Rewind

This was a public relations initiative aimed at increasing awareness on what the Rotaract experience is like and what you can expect as a Rotaractor. It was accomplished by publishing a series of videos in which board officials and executive committee members gave their thoughts on various questions that were asked.

### Sathkaara Phase II

The Rotaract Club of CCS, in partnership with the Saukyadana Unit of CCS, organized a medical camp at the Horana MOH on May 29<sup>th</sup>, 2024, as Phase II of the Sathkaara project. The event provided free medicines and healthcare services to the community.

### Nena Pawura

Nena Pawura, a book donation drive was a joint initiative by the Rotaract Clubs of CCS and Colombo West, concluded on the 30<sup>th</sup> of May 2024. The two clubs were able to bring a collection of books suitable for students from Grades 1 to 7, which was a welcome addition to the newly built library of Janajaya Maha Vidyalaya, Moratuwa.

### Happy Tails

On May 31<sup>st</sup> 2024, the Happy Tails Animal Food Drive, a heartfelt joint initiative by the Rotaract Club of College of Chemical Sciences and Colombo North, made a small but impactful difference in the lives of over 50 street dogs and cats.

### Twin Club Agreement

A Twin Club Agreement was established between the Rotaract Club of CCS, Sri Lanka (RID 3220) and the Rotaract Club of DYPSSB Satellite City, India (RID 3142) after a series of joint meetings and projects, including a cook-off, coloring session and joint general meetings.

### General Meeting – May

The General Meeting for the month of May, the final General meeting for the Rotary year 2023-24, was held on the 31<sup>st</sup> of May 2024 at the SLNSS building. The outgoing EXCO made sentimental statements about their year and congratulated the incoming board while wishing them the best of luck.

### Awards won at the 34<sup>th</sup> Rotaract District Assembly

The Rotaract Club of the College of Chemical Sciences received multiple prestigious awards and recognitions at the 34<sup>th</sup> Rotaract District Assembly, a testament to the club's unwavering passion and dedication. These accolades highlight the club's commitment to service, leadership, and community impact, reflecting the hard work and enthusiasm of its members throughout the year. The recognition serves as motivation for the club to continue its efforts in creating meaningful change, inspiring others, and furthering the core values of Rotaract.



Rotaract District Citation – Gold Award  
Most Outstanding Inter-Zonal Initiative – Gold Award  
Most Outstanding Cluster Project – Bronze Award  
Most Outstanding Newly Established Twin Club Agreement –

Merit Award

Aspirational Leader of the Year 2023-24 – Rtr. Sayumi Tissaarachy  
President of the Month (October) – Rtr. Sayumi Tissaarachy  
Secretaries of the Month (April)

– Rtr. Harini Sadewani and Rtr. Tharin Kulawardena

Spirit of Service Award – Rtr. Thanuri Wickramasinghe  
Award of Appreciation for Hosting Rathnapura Fellowship Visit  
Award of Appreciation for hosting the District Council Meeting for the month of March



### 12<sup>th</sup> Transition Meeting

Rotaract Club of College of Chemical Sciences successfully held its 12<sup>th</sup> transition meeting on the 12<sup>th</sup> of July 2024, marking the beginning of the new Rotary year under the leadership of Rtr. Sarika



Nandasekaran and her Board of Officials and Board of Directors.

The Board of Officials is as follows:

President: Rtr. Sarika Nandasekaran

Immediate Past President: Rtr. Sayumi Tissaaratchy

Vice President: Rtr. Shenal Perera

Joint Secretaries: Rtr. Sathnara Fernando & Rtr. Bilal Salahudeen

Treasurer: Rtr. Navindu Kulasekara

Sergeant-At-Arms: Rtr. Dinathmin Jayasekara

Joint Editors: Rtr. Oshadi Malshika & Rtr. Kavindu Medagoda

Board of Directors is as follows:

Joint Directors of Club Service:

Rtr. Chanuth Waidyadasa & Rtr. Chathun Gunasekara

Joint Directors of Community Service:

Rtr. Amasha Gunasekara & Rtr. Asith Dias

Joint Directors of Professional Development:

Rtr. Binadhi Jayasinghe & Rtr. Subhathi Kannangara

Joint Directors of Public Relations:

Rtr. Minanga Kumaranayake & Rtr. Dihnasa De Silva

Joint Directors of Digital Communications:

Rtr. Sethara Samarasinghe & Rtr. Ahamed Munawwar

Joint Directors of Environmental Sciences:

Rtr. Ama Perera & Rtr. Pathum Rathnayake

Joint Directors of Finance:

Rtr. Diwangi Nishadini & Rtr. Kevin Fernando

Director of Sports & Recreational Activities: Rtr. Nazeem Cassim



### Round-Up Cultural Exchange

A cultural exchange program that was held in collaboration with The Rotaract Club of GNKITM, India (RID 3080) during which the two clubs exchanged words from Hindi and Sinhala and facts about each other's cultural heritage. The program ended after a small quiz session in which knowledge of each other's countries was explored. Rotaractors from different Rotaract districts participated in this program.

### Balancing Act

PDRR Rtn. Rtr. PP Ahamed Hussain and DRRE Rtr. PP Nazmi Mahamood, shared their invaluable insights on how to effectively juggle Rotaract with other life commitments during an on-line

session (via Google Meet) held on the 1<sup>st</sup> of September 2024. The session saw the participation of many Rotaractors.

## INTER-UNIVERSITY POSTER COMPETITION

On June 1, 2024, two teams from the College of Chemical Sciences (CCS) proudly represented the college at the SLASA E2 Inter-University Poster Competition. The event showcased innovative research across multiple themes, with both CCS teams participating under two significant topics:

- Theme 1: Chemical Approaches for Sustainable Urban Waste Management

Team members: Keshiah Fernandez, Aamna Eliyas, Harini De Silva, Dinara Gunatillake, and Amali Nelunika.

- Theme 2: Innovations in Nanotechnology for Clean Water Sanitation

Team members: Devindi Perera, Insaf Ifthikar, Sanuga Nanayakkara, Senaya Muhandiram, and Sujayee Athukorala.

The team competing under Theme 2 secured third place in the competition, demonstrating the exceptional talent and dedication of the students.



## SLASS INTER-UNIVERSITY QUIZ COMPETITION

The Inter-University Quiz Competition, organized by SLASS Section E2, brought together bright minds from various institutions. This prestigious event took place in two stages: the selection round was held on the 13<sup>th</sup> of July, and the semi-finals and finals were conducted at the SLAAS Auditorium on the 17<sup>th</sup> of August. The College of Chemical Sciences (CCS) was proudly represented by a team of distinguished participants namely, Ms. Tellulah Fernando, Ms. Dinushi Fernando, Ms. Tharushi Fernando, Ms. Suharshi De Silva, and Ms. Sesadhi Disara Rajapaksha. The competition was a thrilling experience for both participants and the audience, highlighting the importance of intellectual engagement and collaborative learning in today's academic environment.

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**ICHEMC NEWS**


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**COUNCIL 2024/ 2025**

|                                                   |                                               |
|---------------------------------------------------|-----------------------------------------------|
| President                                         | : Prof. J A Liyanage                          |
| President Elect                                   | : Prof. H M K K Pathirana                     |
| Vice President                                    | : Prof. A D L C Perera                        |
| Immediate Past President                          | : Prof H M D N Priyantha                      |
| Hony. Joint Secretaries                           | : Dr. D T Abeysinghe<br>Dr. A G M J Gunaratna |
| Hony. Treasurer                                   | : Prof P A Paranagama                         |
| Hony. Asst. Treasurer                             | : Prof P A S R Wickramarachchi                |
| Hony. Editor                                      | : Prof. C Hettiarachchi                       |
| Hony. Asst. Editor                                | : Prof. W A P J Premaratne                    |
| Chairperson/Past Presidents Committee             | : Prof S Liyanage                             |
| Secretary for International Relations             | : Prof R D Wijesekera                         |
| Chairperson/AB-IChemC                             | : Prof. J A Liyanage                          |
| Hony. Secretary/AB-IChemC                         | : Dr. K Weerasiri                             |
| Chairman, Admission & Ethical Practices Committee | : Mr E G Somapala                             |
| Secretary, A & EP Committee                       | : Prof C Padumadasa                           |
| Chairman, Board of Trustees                       | : Prof. S A Deraniyagala                      |
| <i>Elected Members</i>                            |                                               |
| Prof. S Hewage                                    | Prof S P Deraniyagala                         |
| Prof. A N Nawaratne                               | Prof. H I C de Silva                          |
| Dr. R L P Weerasinghe                             | Dr. D S Samarawickrama                        |
| Mr. M R M Haniffa                                 | Mr. P S M Kumarathunga                        |
| Mr. Thisath Alahakoon                             | Ms. Upeksha Weliakala                         |

**OBITUARY NOTICE -**
**DEMISE OF MR. K SIVARAJAH**


Mr. K Sivarajah, a retired Government Analyst and Council Member of the Institute of Chemistry Ceylon passed away in mid December. He received yeoman service award for having richly contributed to the success of the educational programmes of the Institute in an exemplary and noteworthy manner in 2012, and was a member of the academic board of CCS. The funeral service was held on the 22<sup>nd</sup> December 2024 at Borella main crematorium.

“When the roots are deep there is no reason  
to fear the wind”

~African proverb

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**ICHEMC EVENTS**


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**SECOND INTERNATIONAL  
CONFERENCE ON FRONTIERS IN  
CHEMICAL TECHNOLOGY (FCT-2) 2024**

The conference held on the 20-22 June 2024 at the Hotel Marino Beach, 590 Marine Drive, Colombo 3, was bloomed by the Chief Guest, Dr. Ale Palermo, Head of Global Inclusion at the Royal Society of Chemistry, UK, and Prof. Sabu Thomas, Chairman, Trivandrum Engineering Science & Technology Park, Mahatma Gandhi University, India, as the Guest of Honour. Additionally, many Plenary Speakers and Keynote Speakers from Sri Lanka and abroad added value to the conference, delivering excellent presentations sharing their knowledge and experience.

The conference provided an opportunity for early career chemists to disseminate novel findings of their research. More than 110 technical presentations were delivered in-person in the five sub-themes within the three days, contributing to the upliftment of science. The best presenter of each session was identified by the panels of judges to encourage early career chemists to advance their research in the field of chemical science.

The 2<sup>nd</sup> International Conference on Frontiers in Chemical Technology was a great success, which allowed researchers in the field of chemical science to interact with each other, paving the way forward to proceed with technological advancements empowering the future.

**THE COMMEMORATION CEREMONY  
OF THE 80<sup>TH</sup> BIRTH ANNIVERSARY  
AND 9<sup>TH</sup> DEATH ANNIVERSARY OF**
**PROF. J N O FERNANDO**

The Commemoration of the 80<sup>th</sup> birth anniversary and 9<sup>th</sup> death anniversary of Emeritus Professor J.N.O. Fernando was held successfully on the 1<sup>st</sup> of March 2024 at ICHEMC premises.

Following the arrival of guests, the Welcome Speech by Prof. H.M.D.N. Priyantha President, Institute of Chemistry Ceylon was conducted, and the event was then graced with hymns sung by the Level 2 students. Donations collected for the Victoria home, Rajagiriya was given to a representative by Prof. Namal Priyantha. Dr. Gobika Thiripuranathar then addressed the audience with the reading of the Orators citation, followed by the memorial oration given by Prof. P.A. Nimal Punyasiri Chair and Professor of Biochemistry, Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo, titled “Chemist, Educationist, Mentor and Visionary – Reminiscences of Prof. JNO Fernando” where he recalls the epitome that was Prof. JNO Fernando. The event concluded with the garlanding of the statue of Prof. JNO Fernando at ICHEMC.



## ANNUAL SESSIONS

53<sup>rd</sup> Annual Sessions along with the 83<sup>rd</sup> Anniversary Celebrations of the Institute of Chemistry Ceylon held concurrently with the Inauguration of the 2<sup>nd</sup> International Conference on Frontiers in Chemical Technology, 2024 on 20<sup>th</sup> June 2024 at Marina Beach Hotel, Colombo. The Award ceremony was held on 21<sup>st</sup> June 2024 at Marina Beach Hotel, Colombo.

The following distinguished awards were given away to the recipients.

- Distinguished Service Award - Prof. Srianthie A Deraniyagala
- Special Yeoman Service Award - Prof. Sudantha Liyanage
- CCS Research Awards

CCS Researcher of the year - Prof. T Gobika

Merit Award - Dr. S R Gunatilake

- Ramakrishna Memorial Award - Prof. T C Jayaruk

The prizes, scholarships and awards were also presented to the All Island Interschool Chemistry Quiz prizes, Sri Lanka National Chemistry Olympiad prizes, Inter-university Magic Competition, Inter-university Debate Competition, Graduateship in Chemistry & BSc Hons (Chemical Science) Examinations Scholarships, Prizes and Awards, J N Oleap Fernando Memorial Scholarship, CCS Colours.



## AGM OF THE INSTITUTE OF CHEMISTRY CEYLON - 2024

The Annual General Meeting of the Institute of Chemistry Ceylon was held on the 20<sup>th</sup> of June 2024 at Marina Beach Hotel, Colombo. The office bearers for the Council 2024/25 were appointed in this event.





## CCS EVENTS

### XX<sup>TH</sup> CONVOCATION IN GRANDEUR

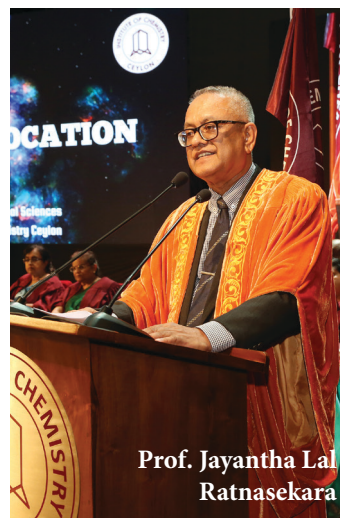
The 20<sup>th</sup> Convocation of the College of Chemical Sciences (CCS), Institute of Chemistry Ceylon (ICChemC) was held at the BMICH on the 4<sup>th</sup> of November, 2024. Prof. Jayantha Lal Ratnasekara, the Governor of the Eastern Province, graced the occasion as the Chief Guest.

This event marked the graduation of 119 graduates, 9 diplomates and 5 licentiate chemists of the Graduateship in Chemistry (GIC) program, 36 graduates of BSc Hons. in Chemical Science and, 42 diplomates of the Diploma in Laboratory Technology (DLT). Overall and subject prizes were also awarded to graduates who excelled in different theory and practical aspects of chemistry during their academic years in the institute.

The President of ICChemC, Prof. Janitha Liyanage, Council members of the ICChemC, emeritus and senior professors, senior lecturers, administrative staff, teaching assistants, Parents and Well-wishers were among the attendees. The event concluded with the valedictory speeches delivered by Ms. G S P de Silva, Ms. T D Fernando, and Ms. K Midusha who won the overall best performance prizes for GIC, BSc Hons in Chemical Science and DLT programs, respectively.



Prof. Janitha Liyanage



Prof. Jayantha Lal Ratnasekara



Ms. T D Fernando



Ms. G S P de Silva



Ms. K Midusha



### NEW BATCHES AT CCS

The Inauguration Ceremony of the first intake of 2024 for the BSc (Hons.) degree and GIC programme was held successfully on the 25<sup>th</sup> March 2024 at the PPGL Siriwardene auditorium at ICHEMC premises. The chief guest for the event was an alumnus of CCS, Ms. Udesha Bopitiya, Director, LANMIC Polymerms (Pvt) Ltd. Business Development Manager LANMIC group.

Following a traditional Sri Lankan breakfast and lighting of the traditional oil lamp, the Dean of CCS, Prof. Chandani Perera welcomed the newly enrolled students. The Inaugural address was given by Prof. Namal Priyantha. The chief guest address was given by Ms. Bopitiya followed by the overview of the curriculum by the enrolment coordinator Dr. Savidya Jayawardena. The event was graced with an entertainment event by the students.

~\*~

The Inauguration Ceremony of the 2024 intake for the Diploma in Laboratory Technology (DLT) was held successfully on June 9, 2024, at the PPGL Siriwardene Auditorium at ICHEMC premises. Government analyst Mrs. Deepika Senevirathne, a member of the Institute of Chemistry Ceylon, was the event's chief guest.

Mr. E G Somapala, Director of the DLT Program, welcomed newly enrolled students. The dean of CCS, Prof. Chandani Perera, presented a speech regarding the history of the Institute of Chemistry Ceylon as well as the DLT program. Prof. Namal Priyantha delivered the inaugural speech. The chief guest address was given by Mrs. Deepika Senevirathne followed by an overview of the curriculum by the Assistant Programme Coordinator Ms. Upekshya Welikala.



## CCS NEWS

### PROMOTIONS



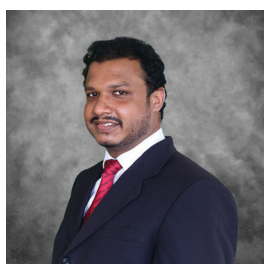
The CCS family congratulates **Prof. Gobika Thiripuranathar** on being promoted to the position of Professor in Inorganic Chemistry. She is the first internal academic from the College of Chemical Sciences to achieve this significant milestone. We wish her all

the very best in her future endeavors.

### RESIGNATIONS

The CCS family bids farewell to the following non-academic and academic staff Mr P. M. Hettige, Dr P. S. Jayawardena and Dr. J. M. U. P. A. C. K. Jayasundara. We thank them for their services and their dedication and wish them all the best in their future endeavors!

### ACHIEVEMENTS



We would like to extend our heartfelt congratulations to **Mr. E. A. D. Ishantha** on achieving a significant academic milestone by receiving his Master's degree in Professional Accounting on the 31<sup>st</sup> of March 2024 from the University of Sri Jayawardenepura. Wishing him

continued success and many more achievements in the years ahead!

We would like to extend our heartfelt congratulations to **Ms. S. D. N. M. Senadeera** on achieving a significant academic milestone by receiving her MSc in Integrated Water Resources Management on the 12<sup>th</sup> of February 2024 from the Postgraduate Institute of Agriculture, University of Peradeniya. Wishing her continued success and many more achievements in the years ahead!



### CCS AWARDS



Prof. Gobika Thiripuranathar was awarded the CCS Researcher of the year award at the Frontiers in Chemical Technology, 2024 conference organized by the Institute of Chemistry Ceylon, from June 20<sup>th</sup> to June 22<sup>nd</sup> at the

Hotel Marino Beach, Colombo. Currently, Prof. Thiripuranathar has over 60 publications to her name, with over 1,000 Web of Science citations and an h-index of 17.

## RESEARCH PUBLICATIONS

The following peer reviewed research articles have been published with the College of Chemical Sciences affiliation during the year 2024.

### Gobika Thiripuranathar

1. Aththanayaka, A. M. S.; Thiripuranathar, G.; Ekanayake, S., Biomolecules-Organized Nanomaterials for Medical Applications. In Recent Progress in Nanobiotechnology: Modern Techniques in Biomedical Applications, Springer: 2024; pp 127-149.
2. Aththanayaka, S.; Thiripuranathar, G.; Ekanayake, S., Comparative Evaluation of the Multifunctional Biological Activities of Palmyra Extract-Mediated Ag/Ag<sub>2</sub>O, ZnO, and Ag/Ag<sub>2</sub>O/ZnO Nanomaterials. Waste and Biomass Valorization 2024, 1-23.
3. Gamage, V.; Nishshanka, U.; Thiripuranathar, G.; Priyantha, N.; Gunewardene, S.; Jayanetti, S., Pesticides detection by nanotechnology-based sensors. In Nanotechnology-based Sensors for Detection of Environmental Pollution, Policarpo Tonelli, F. M.; Roy, A.; Ozturk, M.; Murthy, H. C. A., Eds. Elsevier: 2024; pp 215-236.
4. Pasqual, O.; Rathnayake, A.; Thiripuranathar, G.; Ekanayake, S., Main inorganic pollutants and their risk to living beings. In Nanotechnology-based Sensors for Detection of Environmental Pollution, Policarpo Tonelli, F. M.; Roy, A.; Ozturk, M.; Murthy, H. C. A., Eds. Elsevier: 2024; pp 11-38.
5. MubarakAli, D., Saravanakumar, K., Ganeshalingam, A., Santosh, S.S., De Silva, S., Park, J.U., Lee, C.M., Cho, S.H., Kim, S.R., Cho, N. and Thiripuranathar, G., 2024. Recent Progress in Multifunctional Stimuli-Responsive Combinational Drug Delivery Systems for the Treatment of Biofilm-Forming Bacterial Infections. *Pharmaceutics*, 16(8), p.976.
6. Gamage, V.; Thiripuranathar, G.; Nishshanka, U.; Priyantha, N.; Gunawardene, S.; Jayanetti, S., Plant-Based Synthesis of Nanomaterials for Nanoremediation. In Green Nanoremediation: Sustainable Management of Environmental Pollution, Springer: 2023; pp 127-150.
7. Usliyanage, J. P.; Perera, G.; Thiripuranathar, G.; Mena, F., Synthetic strategies of Ag-doped ZnO nanocomposites: a comprehensive review. *Biomass Conversion and Biorefinery* 2023, 1-21.
8. Wijesinghe, U.; Welikala, U.; Thiripuranathar, G., Mechanism of Silver Nanoparticle-Based Postharvest Technologies. In Postharvest Nanotechnology for Fresh Horticultural Produce, CRC Press: 2023; pp 116-141.
9. Aththanayaka, S.; Thiripuranathar, G.; Ekanayake, S., Chapter 15 - Green synthesized nanomaterials as antioxidant and

antiinflammatory substances. In *Synthesis of Bionanomaterials for Biomedical Applications*, Ozturk, M.; Roy, A.; Bhat, R. A.; Vardar-Sukan, F.; Policarpo Tonelli, F. M., Eds. Elsevier: 2023; pp 299-317.

- Aththanayaka, S.; Thiripuranathar, G.; Ekanayake, S., Microwave-assisted phytogenic Ag/Ag<sub>2</sub>O/ZnO nanocomposite as a replacement of Ag/Ag<sub>2</sub>O and ZnO nanoparticles: A comparative antioxidant study. *Surfaces and Interfaces* 2023, 43, 103547.
- Welikala, U., Wijesinghe, U. and Thiripuranathar, G., 2023. Zinc-Oxide Nanoparticle-Based Methods for the Minimally Processed Horticultural Produce. In *Postharvest Nanotechnology for Fresh Horticultural Produce* (pp. 273-294). CRC Press.

#### Dinusha Udukala

- Chathurangani, D.A.U.; Udukala, D.N.; Gunaratna, M.J.; Evaluation of phytochemical composition and biological activities of ethanol extract of bark of *Dialium ovoideum* Thwaites, *Medicinal Plants – International Journal of Phytomedicines and Related Industries*, 2024, 16(2), 350-358.
- Mendis, N. N.; Ratnayake, I. A.; Udukala, D. N.; Paranagama, P. A., Endolichenic Fungi as a Source of Pharmaceutically Active Compounds. In *Fungi Bioactive Metabolites: Integration of Pharmaceutical Applications*, Springer: 2024; pp 111-140.
- Perera, W.; Senadeera, M. N.; Udukala, D. N., Past, Present, and Future of Alkaloid-Based Anticancer Agents. In *Harnessing Medicinal Plants in Cancer Prevention and Treatment*, IGI Global: 2024; pp 22-47.
- Senevirathne, K. M. B. B.; Kandanapitiye, M. S.; Udukala, D.

N.; Farhath, M. M.; Fouad, D.; Kumar, Y. A.; Jaseetharan, T. Non-toxic Bi<sub>2</sub>S<sub>3</sub> quantum dot-sensitized TiO<sub>2</sub> electrodes for cost-efficient solar power conversion, *Electrochimica Acta*, 2024, 145121.

- Upeka, D. A.; Udukala, D. N.; Gunaratna, M., A Comprehensive Review of The Chemical Composition and Pharmacological Activities of The Genus *Dialium*. *Jordan Journal of Chemistry (JJC)* 2024, 19 (3), 133-157.
- Mendis, C.; Govinnage, N. H.; Udukala, D. N. Reaction Mechanisms, Pathways, and Kinetic Expressions for Direct CO<sub>2</sub> Conversion to Methanol: In Reduction Using H<sub>2</sub>. *Reference Module in Chemistry, Molecular Sciences and Chemical Engineering* 2024


#### Sameera R Gunatilake

- Wewalwela, J. J., Remediation of *Staphylococcus aureus* in Contaminated Wastewater using Biochar Supported Nanoscale Zero-valent Iron. *Medicon Agriculture & Environmental Sciences* 2024, 7, 27-44.
- Alahakoon, Y. A.; Wilson, S. C.; Peiris, C.; Ranasinghe, Y. K.; Gunatilake, S. R.; Zhang, X.; Mlsna, T. E.; Kumarasinghe, U.; H Mohideen, M. I.; Gandra, U. R.; Varghese, A. M.; Karanikolos, G. N.; Mohan, D., Carbothermally synthesized, lignin biochar-based, embedded and surface deposited nano zero-valent iron composites: Comparative material characterization, selective gas adsorption and nitroaromatics remediation. *Colloids and Surfaces C: Environmental Aspects* 2024, 2, 100048.
- Alahakoon, Y. A.; Malaweera Arachchi, U.; Gunatilake, S. R., Clay-Supported Nanoscale Zero-Valent Iron Composites for Water Purification. *Clay Composites: Environmental Applications* 2023, 451-478.

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