

Curriculum Vitae of Prof. K. P. S. Chandana Jayaratne

Chairman, Arthur C Clarke Institute for Modern Technologies (ACCIMT)
Professor in Physics,
Head of the Department of Physics and
Director, Astronomy and Space Science Unit, Department of Physics,
University of Colombo, Colombo-03, Sri Lanka.
Recipient of the National Apex Award - 2022 (a Lifetime Award) in Recognition of Professional Excellence in the Field of Science and Technology.
General President (2018) – Sri Lanka Association for the Advancement of Science (SLAAS)
Director, Student Affairs and Senior Student Counsellor, University of Colombo(1999-2003)
Editor in Chief, Journal of the Sri Lanka Association for the Advancement of Science
Council Member-National Research Council (NRC), SLAAS, IPSL, Forum-OPA
National Coordinator - Sri Lankan Olympiads on Astronomy and Astrophysics
Country Coordinator and Board Member - International Olympiads on Astronomy and Astrophysics (IOAA) & International Astronomy Olympiad (IAO)
Senior Student Counsellor, University of Colombo
Email: chandanajayaratne@gmail.com ; chandana@phys.cmb.ac.lk



A.1 - PERSONAL DETAILS

- NAME** Kalu Pathirannahelage Sarath Chandana Jayaratne
- DATE OF BIRTH** 08th September 1960
- PRESENT EMPLOYMENT** **Professor in Physics**
Head of the Department of Physics
Director/Astronomy and Space Science Unit
INSTITUTION Department of Physics, University of Colombo,
Colombo-03, Sri Lanka.
OTHER POSITIONS Past General President-2018, Sri Lanka Association for
the Advancement of Science(SLAAS)
Chairman, Arthur C Clarke Institute for Modern
Technologies (ACCIMT)
- TELEPHONE** Office: 011-2584777; Residence: 011-2515615
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- HOME ADDRESS TO WHICH LETTERS ARE TO BE SENT**
42A, Somadevi Place, Colombo - 05.

A.2 ACADEMIC & PROFESSIONAL QUALIFICATIONS:

**SCHOOL/UNIVERSITY EDUCATION, LIST OF ACADEMIC DEGREES /
PROFESSIONAL QUALIFICATIONS / HONOURS AND AWARDS**

<i>School Education</i>	from	to
1. Dompe Maha Vidyalaya, Dompe	1966	1971
2. Nalanda College, Colombo-10	1971	1978
<i>University Education</i>		
University of Colombo, Sri Lanka	1979	1983

Academic Degrees

BSc Special Degree in Physics (Honours)

- 2nd Class Upper Division - University of Colombo, Sri Lanka; 1983.

PhD*(in Atmospheric Physics) “On Fairweather and Thunderstorm Electricity - basis for Construction of an Atmospheric Electrical Station in Sri Lanka” - University of Colombo, Sri Lanka (sandwich-type PhD program with the Uppsala University, Sweden); 1992.

- (This was the 1st local PhD in Physics awarded by the Colombo University. The PhD work was performed both in Uppsala University (Institute of High Voltage Research + Dept. of Meteorology), Sweden and Colombo University, Sri Lanka, under a collaborative research link programme between the universities of Colombo, Sri Lanka and the Uppsala University, Sweden).

Postgraduate Diploma in Counselling (merit pass), University of Colombo; Sep.1997.

Diploma in International Affairs (Bandaranayake Centre for International Studies, BMICH, Colombo); 2003.

Certificate - Geographical Information Systems, University of Colombo; 2003.

Professional Qualifications

Fellow of the Institute of Physics, Sri Lanka – FIP(SL) and Chartered Physicist.
Member, Professional Counselling Service Association-MPCSA

Honours and Awards

1. **Fellowship(s)** to Uppsala University, Sweden for higher studies form International Science Programmes, Sweden (1986/87, 1988, 1989, 1990/91).
2. **Junior Associate of the International Centre for Theoretical Physics (ICTP)**, Trieste, Italy (1989 - 1992).
3. **“Third World Academy of Sciences Prizes for Young Scientists - The 1991 Prize for Physics”** jointly awarded by TWAS, Italy and NARESA, Sri Lanka in 1991.
4. **GRC (General Research Committee of SLAAS) merit award** in 1992 for my contribution to Sri Lankan Science.
5. **Environment Award – General category (Honorable Mention) for the ozone project**, awarded by Environment Committee of the SLAAS in 1996.
6. **Special mention at the Senate of the University of Colombo on 2019.09.05 on the discovery of a new planetary system (K2-310 (EPIC 212737443)) some 1133 light-years away.**
7. **“Faculty of Science Award for Excellence in Academic Outreach - 2018”** awarded by

Faculty of Science, University of Colombo (29.02.2020).

9. **“Faculty of Science Award for Excellence in Academic Outreach - 2019” awarded by Faculty of Science, University of Colombo (26.03.2021).**
10. **Science Communicators Award- 2020 (Individual category - Electronic Media) from the Committee for the Popularization of Science of SLAAS(Awarded at the BMICH on 06.12.2021).**
11. **“Faculty of Science Award for Excellence in Academic Outreach-2020” awarded by Faculty of Science, University of Colombo (29.04.2022).**
12. **“Faculty of Science Research Excellence Award for 2020” awarded by Faculty of Science, University of Colombo (29.04.2022).**
13. **National Apex Award - 2022 (a Lifetime Award in Recognition of Professional Excellence in the Field of Science and Technology.**
14. **University of Colombo Senate Award for Research Excellence 2020.**
15. **University of Colombo Senate Award for Research Excellence 2021.**

OTHER DISTINGUISHED/NOTABLE HONOURS AND AWARDS RECEIVED

16. **Vidyakeerthi** title by Dharmapala Olcott Memorial International Research Foundation in 1998.
17. Has a citation in the “Sreshta Lanka Puthrayo-ISBN1391-2437”.(1998)
18. **Viswa Vidya Adhi Manovidyavedi** title in 2000 from Sri Jayawardanepura Gunasamru foundation & Mahanayake Theros.
19. Has a citation in “The Millennium Register of Sri Lankan Personalities”.(2000)
20. **Four Avenues of Service Award** from the Rotary International President (2002).
21. PHF - **Paul Harris Fellow** recognition/citation awarded by the Rotary Foundation of the Rotary International (2004).
22. Horana Thakshila College conducts an annual all-island inter-school astronomy competition as “**Dr. Chandana Jayarante Challenge Trophy**” (since 2004).
23. **Special recognition award** from Rotary Club of Biyagama in appreciation of Humanitarian Services Rendered to the Community in 2005.
24. **Outstanding Commitment to the Promotion and Support of Voluntary Blood Donation Programmes recognition from the Rotary International Global Network** in 2006.
25. **“Special Media Award”** awarded by Mass Communicators Association of Sri Lanka in 2007.
26. **Sasana Deepana** in 2008 (from ACBC, Colombo)
27. **Lokarthachari Vidyavachaspati Desamanya** (from the National Honorary Degree Awarding University Institute approved under the Government of Democratic Socialist Republic of Sri Lanka) in 2008
28. Prestigious **“Nalanda Keerthi Sri”** title from the Nalanda College, Colombo 10 in October 2008 at the BMICH (an award given before only to the Kalasuri Henri Jayasena, former Sri Lankan President Hon. Mahinda Rajapakshe, Diyawadan Nilame of Dalada Maligawa Nilanga Dela Bandara and NASA research scientist Dr. Sarth Gunapala).
29. **Honourable award for distinguished humanitarian services** awarded by Sri Lankan Eye Donation Society in 2013.
30. **Divayuru Puthra** award by Universal Knowledge Research Centre, Kelaniya in 2015.
31. **Special recognition** for commitment to Rotary’s membership growth-A Blue pin- from Rotary International in 2015.
32. **Rotary Gold Member** recognition form Rotary Colombo Central on 28.09.2017.

33. **Siyane Gaurawa Keerthi Sammanaya awarded by Dompe Provincial Council to the most distinguished person born in Siyane Korallaya (Western Province – Sri Lanka) 19.10.2019.**
34. **University of Colombo 35 years Long Service Award- 2020.02.06**
35. **“Sasanabhiwardana Keerthi Sri” title form the All Ceylon Buddhist Congress 2022.11.19.**

A.3 PRESENT POSITION(S)

- **Chairman, Arthur C Clarke Institute of Modern Technologies, Katubedda, Moratuwa, 2022.09.08 onwards.**
 - **Head of the Department of Physics, University of Colombo, Sri Lanka, 2020.08.13 to date**
 - **Director, Astronomy and Space Science Unit (ASSU), Department of Physics, University of Colombo, Sri Lanka 2016.10.19 to date.**
 - **Professor in Physics, Department of Physics, University of Colombo from 2009.11.27 to date.**
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OTHER POSITIONS HOLDING IN THE CURRENT YEAR-2022

1. **Executive Committee member, OPA(Organization of Professionals Association) 2020 to date.**
 2. **Board Member, Board of Governance of Arthur C Clarke Institute for Modern Technologies(ACCIMT).**
 3. **Council Member, National Research Council (NRC) of Sri Lanka.**
 4. **Council Member, SLAAS (Sri Lanka Association for the Advancement of Science)**
 5. **Board Member – Colombo Science and Technology Cell (2021.03.01 onwards)**
 6. **Member, Board of Trustees of the Sri Lanka Association for the Advancement of Science**
 7. **Council Member, Institute of Physics Sri Lanka (IPSL).**
 8. **Chairman Technical Sessions Editorial Committee of IPSL.**
 9. **A Trustee of the Sri Lanka Eye Donation Society.**
 10. **Founder and President, Methsaviya.**
 11. **Chairman, Service Projects, Rotary Club of Colombo Central meet at Hilton.**
 12. **Senior Treasurer and Advisor, Astronomy Society, University of Colombo.**
 13. **National Coordinator, Sri Lankan Olympiads on Astronomy and Astrophysics.**
 14. **Chairman, SLAAS All Island School Inventors Competition.**
 15. **Patron, All Ceylon Buddhist Congress**
 16. **Head of the panel of experts on "Nawa Nipayum Diriya - INVENT Grant Scheme of Sri Lanka Inventors Commission**
 17. **Advisory Board – Sinhala Sabdakoshya (Government Dictionary Department)**
 18. **Chief Editor- Journal of the Sri Lanka Association for the Advancement of Science.**
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A.4.1 EMPLOYMENT POSITIONS HELD DURING THE LAST 15 YEARS

- **Head of the Department of Physics, University of Colombo, Sri Lanka, 2020.08.13 to date.**
- **Acting Head of the Department of Physics, University of Colombo, Sri Lanka, 2020.07.20 - 2020.08.12.**

- **Professor in Physics**, Department of Physics, University of Colombo from 2009.11.27 to date.
- **Principal Research Scientist (Space Science) – Arthur C Clarke Institute for Modern Technologies**, Katubedda, Moratuwa (on sabbatical leave): 2003.10.27- 2004.10.26.
- **Director Student Affairs and Senior Student Counsellor, University of Colombo** from April 2002 - April 2003.
- **Senior Student Counsellor, University of Colombo**, April 1999 - March 2002 & 2003.
- **Senior Lecturer (Gr. II)**, Department of Physics, University of Colombo, Sri Lanka: 1992.10.01 - 2009.11.26.
- **Asst. Lecturer in Physics**, Department of Physics, University of Colombo, Sri Lanka: 1984.01.24 - 1992.09.30.

A.4.2 OTHER SIGNIFICANT CURRENT / PREVIOUS ACADEMIC POSITIONS HELD

- (i) Visiting lecturer on Human Psychology to the IHARA-University of Colombo (2011-2012)
- (ii) Visiting lecturer on “DY6 : Basic Science – Physics” to the Institute of Workers Education, Colombo University (1996 -2006).
- (iii) Visiting lecturer on “Science & Technology” to the Institute for Human Resource Advancement(IHRA) of the Colombo University (2007 -2009).
- (iv) Visiting Lecturer on Introduction to Astronomy (ELT 3104/3131) to the Faculty of Arts, University of Colombo (2000-2003).
- (v) Visiting Lecturer - MSc in Atmospheric Physics, Dynamical Meteorology and Natural Disaster Preparedness, University of Colombo(2000-2003).
- (vi) Visiting Lecturer – MSc in Environmental Science, University of Colombo (2006-2007).
- (vii) Visiting lecturer on Astronomy - NIE Advanced Certificate Course for Science Teachers (2015).
- (viii) Visiting Lecturer- MSc programme in Physics Education (MEP 5408 Special Topics in Physics: Astronomy and Atmospheric Physics), 2015- to date.
- (ix) Visiting Lecturer on Astronomy to The Open University of Sri Lanka - PYU 3172 Astronomy course (2013 -to date).
- (x) Visiting lecturer/MSc in Climate Change and Environment management, Faculty of Science, University of Colombo (2016- to date)
- (xi) **Supervisor- University of Cambridge International Examinations- GCE (ASL & AL) Physics-Advanced Practical Skills 1 – May/June 2015- Physics Practical Exam - Colombo University Exam Centre 2016,2017, 2018, 2019, 2020 and 2022.**

A4.3 Other positions held within the University of Colombo

- (i) **Senior Student Counsellor, University of Colombo**, April 1999 up to 2002 and **Director Student Affairs and Senior Student Counsellor, University of Colombo** from April 2002 up to April 2003.
- (ii) **Member of the Senate**, University of Colombo as the Science Faculty Representative (August 95 onwards up to April 2003) and from 2010 to date.
- (iii) **Senior Treasurer and Adviser**, Astronomical Society and former Mathematical and Astronomical Society, University of Colombo (14.06.94 onwards up to date except 2004).
- (iv) **Group leader, Atmospheric Physics and Lightning research group of** the Department of Physics, University of Colombo (1986-1998).
- (v) **Member, Inter-Departmental Committee** on Teaching of Environmental Science in the Faculty of Science, University of Colombo.(1997).
- (vi) Course Coordinator – MSc in Atmospheric and Dynamical Meteorology. (Nov. 2000 -2003.)

- (vii) **A Student Counsellor**, University of Colombo (16.05.94 - 15.11.94 & 16.11.94 - 15.05.95).
- (viii) **Member, Local Organizing Committee Secretariat – Asian Regional College on Microprocessors: Technology and Applications**, organized by Colombo University, in Colombo, Sri Lanka(June 1984).
- (ix) **Hony. Secretary, University of Colombo Science Teachers’ Association-UCSTA** (1993,1994 and in 2000).
- (x) **Hony. President, University of Colombo Teachers’ Association-UCSTA** (1995).
- (xi) **Hony. Secretary, Faculty Centre** of the University of Colombo (1996/97 & up to 2001).
- (xii) **Member- Science Faculty Exam Grievances Appeals Boards** (2010+, 2018, 2019).
- (xiii) **Member. Higher Degree Committee of the Faculty of Science**, University of Colombo (2008 - to date).
- (xiv) **Physics Department representative to the Higher Degree Committee** of the Faculty of Science (2011 -2020)
- (xv) **Executive committee member of the University of Colombo Alumni Association** 2000/2001.
- (xvi) **Chairman-Website Development Sub-Committee** of the University of Colombo Alumni Association (2002-2003).
- (xvii) **Member, Physics Education Committee** and establishment of the Physics Education Unit in the Department of Physics (2008 to date).
- (xviii) **Member, Sports Board of the University of Colombo** (2008 - 2016).
- (xix) **Domain Coordinator** of the Domain 9 -Distance Learning of HETC Quality Assurance project- Faculty of Science, University of Colombo (2015/16-2019).
- (xx) **Chairman- Science Faculty Infrastructure Development Committee** (2015.10.06 to 2019).
- (xxi) **Member, Quality Assurance (QA) cell of the Faculty of Science**, University of Colombo(2017.03.15 to July 2019).
- (xxii) Internal Reviewer of the Quality Assurance (QA) Cell of the Faculty of Science, the University of Colombo from August 2019.
- (xxiii) Member, Faculty Board subcommittee on the formulation of an undergraduate research symposium 2019
- (xxiv) Member, Faculty Board student mentoring committee 2019 November+
- (xxv) Postgraduate Advisor, Department of Physics 2011-2020

A.5 LEADERSHIP & ADMINISTRATIVE EXPERIENCE

A.5.1 ADMINISTRATIVE EXPERIENCE-I

- (i) **Senior Student Counsellor and Director Student Affairs, University of Colombo (April 1999 up to April 2003)** – four years administrative experience with ex-officio to Planning and Development Committee and the Student Welfare and Support committee of the University of Colombo and the person responsible to the Vice-chancellor on the discipline of the university.
(Senior Student Counsellor, University of Colombo, April 1999 up to 2002 and Director Student Affairs and Senior Student Counsellor, University of Colombo from April 2002 up to April 2003).
- (ii) **Founder Course coordinator- MSc in Atmospheric Physics, Dynamical Meteorology Nov. 2000 - October 2003 (3 years) and Course Coordinator- PGD/MSc in Atmospheric Physics, Dynamical Meteorology and Natural Disaster Management -Department of Physics,**

University of Colombo (Nov. 2007- Nov. 2009). (2 years)- This is the 1st MSc programme started by the Physics Department, University of Colombo and I received an ADB grant for this initiative.

- (iii) **Principal Research Scientist (Space Science) – Arthur C Clarke Institute for Modern Technologies, Katubedda, Moratuwa (on sabbatical leave - one-year period) : 27.10.2003-26.10.2004.** (Development of GIS and Astronomy divisions of the space application division, manpower development and guiding its research officers develop the division to present status of launching its satellite program with special attention to research and dissemination of knowledge activities particularly at rural level).
- (iv) **President of the Sri Lanka Eye Donation Society (2012.02.20 -2013.06.30). Administrative experience as the CEO of the International Eye Bank, Eye Hospital and International model Tissue Bank** in maintaining international relations with 55 countries to send eye cornea, handling of 50 staff members, vehicle fleet of 10 including an ambulance, maintenance of the four-story building at Vidya Mawatha- Colombo-07 and its annual activities including the 400 odd branches distributed all over the country and annual cash flow over 50 million rupees.
- (v) **Administrative experience as the Hon. General President- Sri Lanka Association for the Advancement of Science(SLAAS) – 2018 and General Secretary, SLAAS (1993-1995)**
With a record in the SLAAS history of 74 years, I as the General President of the SLAAS was able to raise the highest ever amount of funds for the SLAAS in the year 2018 conducting activities worth over Rupees 40 million within a period of one year, launching the 1st Volume of long-awaited (since 1993) “The Journal of the Sri Lanka Association for the Advancement of Science” and to imitate the new building project worth over Rs 88 million – a project tried to implement since the early 90s by SLAAS. SLAAS, the apex body of Scientists in Sri Lanka, was started in 1944 and today it has over 5000 scientists in the country as members with various scientific disciplines. A possess a building of its own at Vidya Mawatha, Colombo-07, a vehicle and about 10 staff members. The General President and General Secretaries are the chief managing officers implementing the Council desiccations. I was serving in the Council for a period of 25 years as a Council member.
- (vi) **Scientific Coordinator Mobile Science Exhibition housed in three Railway Carriages (1994-2001)**
Administrative experience gained as the Scientific Coordinator of the world’s first-ever Mobile Science Exhibition housed in three Railway Carriages commissioned under the Ministry of Science and Technology as a SLAAS initiated project. I dedicated a lot of my time to design the scientific exhibits, incorporate descriptions in writing and preparation of the publication (in newspaper print) and the production of the video describing each and every item. The train has gone all over the country, stay at a remote railway station for about a month so that the school children and the general public in that area will visit the exhibition (Schools are informed in advance through the Ministry of Education). School children are trained as demonstrators at each stay point. This was really an Exploratorium than a mere exhibition where visitors could try and explore the scientific principles with some fun. The train was operative in the country for nearly 7 years in the 1990s (from 1994 to 2001) with Bank of Ceylon generous sponsorship. It was my task also to look after the proper functioning of the exhibition progrmme, and I used to visit remote railway stations often for this purpose. I also took the lead role in preparing the Exhibition publication/handout and the CD on the description on science behind the Exploratorium items.
- (vii) **Founder and National Coordinator of two national Olympiads: (i) Sri Lankan Olympiad on Astronomy and Astrophysics and (ii) Sri Lankan Junior Astronomy Olympiad (2007 to date)**

I initiated the “Sri Lankan Olympiad on Astronomy and Astrophysics in 2007” and four years later I started the “Sri Lankan Junior Astronomy Olympiad” in 2011. The purpose of the above Olympiads conducted at national levels is to popularize Astronomy and Astrophysics and to attract bright young school students all over the country to Science stream education and especially towards Astronomy and Astrophysics. These Olympiads are currently attached to the Institute of Physics, Sri Lanka. Other supportive bodies are the Department of Physics, University of Colombo, National Science Foundation and the Sri Lankan Astronomy Olympiad Association. The knowledge of the applicants will be tested with a theory paper on Astronomy. National level competitions are conducted at the examination centers in several universities in the country at the same time in all three languages: Sinhala, Tamil, and English for school students. These Olympiads are organized annually and currently holds in the month of June at the examination centers in the universities of Colombo, Kelaniya, Ruhuna(Matara), Rajarata(Mihinthale), Jaffna and the Open University Centres in Kandy(Polgolla) and Batticaloa. While those who excelled at the examination are awarded with national awards (Gold, Silver and Bronze medals and merit awards) we select the best students and send them to participate at the corresponding International Olympiads. Maximum of five students those who do well in the Sri Lankan Astronomy and Astrophysics Olympiad Competition (for grades 10-13 students) will have the chance to participate at the International Olympiad on Astronomy and Astrophysics(IOAA). Meanwhile maximum of three students those who excelled at the Sri Lankan Junior Astronomy Olympiad competition (for grades 6-9) will send to the International Astronomy Olympiad(IOA) together with a university lecturer who act as the coordinator and leader of the team. (see IPSL website www.ip-sl.org and refer the Astronomy Olympiad page for syllabus, past papers and details). Selected students will be trained vigorously at the Colombo University, Sri Lanka Planetarium and at The Arthur C Clarke Centre Space Science Division before they are sent to the International Olympiads

At the 1st IOAA held in Thailand (2007) Sri Lanka reached to the 13th place at with three of our students receiving honourable mention awards. Similarly, students selected from subsequent SLOAAs represented Sri Lanka at the 2nd IOAA held in Bandung, Indonesia in 2008, 3rd IOAA held in Tehran, Iran in 2009, 4th IOAA in China in 2010 and 5th in Poland in 2011, 6th IOAA in Brazil (2012), 7th IOAA in Greece, 8th IOAA in Romania and 9th IOAA in Indonesia and had won several awards bringing fame to the country.

(viii) Project Chair - Implementation of a Rs 12.4 million worth nation-wide Teachers training programme on Change education towards STEM education through inquiry-based learning for Sri Lankan schools (2018)

Administrative experience on planning and development as the project Chair of this project conducted jointly with Science & Technology Advisory Committee (STAC) of the Sri Lanka Association for Advancement of Science (SLAAS) in collaboration with the Ministry of Education, Sri Lanka and the Ministry of Science, Technology, Research, Skills Development & Vocational Training and Kandyan Heritage, Sri Lanka in 2018. The above project was initiated to train school teachers on STEM education. Science teachers selected from grades 6-9 were trained in all nine districts in Sri Lanka through three-day in-house residential training programmes as a pilot project to implement STEM education in the country to face the about 70% loss of existing jobs in the next two decades due to development of artificial Intelligence and automation.

(ix) Chief Supervisor- University of Cambridge International Examinations- GCE (ASL & AL) Physics-Advanced Practical Skills 1 – May/June 2015- Physics Practical Exam - Colombo University Exam Centre (2015.05.19).

Administrative experience as budget preparation, preparation of practical setups, managing academic and non-academic staff, etc.

(x) Chairman-Local Organizing Committee of Hosting and conducting the 23rd International Astronomy Olympiad(IAO) 6-14 October 2018, Colombo, Sri Lanka (This is the first-ever International Olympiad that hosted in Sri Lanka).

Administrative experience in conducting this Rs. 20 million program. The Sri Lanka Associations for the advancement of science (SLAAS), under the patronage of the Ministry of Science, Technology and Research and jointly with Institute of Physics Sri Lanka (IPSL), University of Colombo, Arthur C Clarke Institute for Modern Technologies (ACCIMT), Sri Lanka Planetarium and Sri Lankan Astronomy Olympiads Associations hosted the 23rd International Astronomy Olympiad (IAO) -2018 in Sri Lanka as an activity to celebrate the country's 70th Independence. The activities of the program were planned from 6th October to 14th October this year and this was the first-ever International Olympiad to have in Sri Lanka. 22 countries and 130 foreign delegates participated (with local group and organizers -150). The opening ceremony was held at Eagles Lake Side – Aththidiya and closing ceremony at Pegauses Reef Hotel, Wattala where the guests were accommodated for 10 days. Cultural displays and events were included in those two ceremonies to flash our countries exposure to the international community.

The competition consisted of the theoretical and observational examination rounds which are mostly held at the Pegauses Reef Hotel. The observation examination will be carried out by Arthur C Clarke Institute at Moratuwa university grounds. The program includes two main excursions (one full day) visiting Anuradhapura and Dow-south Maduganga.

(XI) The chief organizer of the Science and Technology exhibition held at the Science Faculty premises, University of Colombo to mark the Golden Jubilee year of the SLAAS. Dec. 1994. and Co-Chair of the “S&T 70” Science and Technology Educational Exhibition held in Science Faculty and UCSC premises in concurrence with the 74th Annual Session of the SLAAS.

The 74th Annual Session of SLAAS under the theme “Space Science and Technology Applications for Sustainable Development” was held at the Faculty of Science Premises, together with School Inventors Competition and an Exhibition (S & T 70 Exhibition) Open to the General Public to Celebrate 70 Years of Independence together with the UCSC and Faculty of Science indicating 70 of Science and Technology achievements. Though SLAAS will coordinate the above events, the S&T 70 Exhibition shall be a joint venture: SLAAS, Faculty of Science and UCSC. I was able to provide RS 50000-70000 per department from SLAAS to construct exhibits and this was a showcase of the activities of the Faculty of Science. The exhibition in 2018 was held from 5th – 8th December 2018 under my position as the General President of SLAAS, while in 1994, me as the General Secretary of SLAAS.

(XII) Head of the Department of Physics from 2021.08.13 to present

Apart from routine administrative work, a major curriculum revision of the decades-old Physics Syllabi was done with introducing three new honours programmes: Astronomy with Data Science, Physics Education and Material Physics. Filling up non-academic vacancies were done, and academic vacancies are in progress. Long felt a new extension to the Physics Building was initiated.

A.5.2 ADMINISTRATIVE EXPERIENCE -II

- AS A MEMBER OF BOARDS OF MANAGEMENT/BOARDS OF STUDY IN UNIVERSITIES/HIGHER EDUCATIONAL INSTITUTIONS

- **Member, Board of Study of Labour Education** – Institute of Workers’ Education, University of Colombo and now IHRA(Institute of Human resource Advancement) (1996 - 2009).
- **Faculty Board representative to the Senate of the University of Colombo** (1995/96) and 2005-11 and as a Professor from 2011 to date.
- **Member of the Academic Syndicate, Institute of Workers Education**, University of Colombo and now IHRA(1996- 2009).
- **Member, Board of Management of Graduate Foundation**, University of Colombo (2000).
- **Member Higher Degree Committee of the Faculty of Science**, University of Colombo (1998 February -2003 and 2005 – to date).
- **Faculty representative to the Sports Board of the University of Colombo** (2008 - 2016).
- **Member, Board of Study on Physics Foundation course- Institute of Physics, Sri Lanka** (2021+)

A.5.3 ADMINISTRATIVE EXPERIENCE -III

- AS ABOARD MEMBER OF NATIONAL /INTERNATIONAL STATUTORY BODIES

- Council (Board) member- the Governing body of the **Sri Lanka Standards Institution -(SLSI)** 2006-2008.
- Council member, **National Institute of Education(NIE)** 2006-2009.
- Member – **Board of Governance of Arthur C. Clarke Institute for Modern Technologies.-** 2014 to date.
- Board Member, Board of Governors-Cabinet, approved Four Member interim board to set up the **National Centre for Lightning Safety** -2012-2016.
- Board Member, **International Board on Astronomy and Astrophysics Olympiad (IOAA)** comprising of over 40 countries- 2007 to date.
- Board Member & Director/Chairman Service Projects – **Rotary Colombo Central**, 2012-15, Board member from 2012 to date.
- Council Member, **Institute of Physics, Sri Lanka (IPSL)** 1984-86, Several occasions in the 90s and 2007-2018.
- **Trustee, Sri Lanka Eye Donation Society** (2006 - Jan. 2012 and 2015.08.15 up to date).
- **Member, Audit and Management Committee of ACCIMT** (2014 to 2018)
- **Council Member of the National Research Council (2020 to date)**

A.6 PROFESSIONAL AFFILIATIONS

A.6.1 POSITIONS / POSTS HELD IN SRI LANKA ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (SLAAS) AND CONTRIBUTIONS MADE TO SLAAS

My association with SLAAS is over 30 years and during this period I was actively supported SLAAS in various capacities and had raised over Rs 40 million funds for various activities through various donors/sponsorships and through the lightning safety seminars that I conducted annually for some time. I am the General President SLAAS for 2018 and a General Secretary of the SLAAS, Secretary International Relations, Secretary BOT and Chairman of CPS, MRS, etc. for several years and had represented SLAAS at various national and international Institutes/events (eg. SLSI, ACCIMT, Indian Science Congress). As a resource person I have participated to well over 100 CPS Science days conducted all over the country since 1986, conducted more than 100 Radio Programs through SLBC Vidylokaya program (as an SLAAS activity) by inviting scientists to talk about their research findings and on topics interested to the general public to upgrade their scientific knowledge, involve with establishing the Media Resource Service of SLAAS with then Gen. President Prof. V.K Samaranayake; also a mastermind in establishing and maintaining multimillion rupees worth SLAAS project on the Mobile Science Exhibition Housed in three Railway carriages consisting of Exploratorium type exhibits to bring science to the general public (The train was operative in the country for nearly 7 years (from 1994 to 2001) with Bank of Ceylon generous sponsorship. It was my task also to look after the proper functioning of the exhibits and I used to visit remote railway stations often for this purpose.), also coordinated the steering committee with SLAAS leadership to obtained the biggest telescope in Sri Lanka (45 cm GOTO) received as a Japanese grant and now located at the Arthur C Clarke Institute for Modern Technologies. After the mobile science exhibition, a fixed Exploratorium was established at the bare land adjacent to the SLAAS building by constructing a temporary shed (which is still there protecting the land) through an Rs. one million funds obtained from the Ministry of Science and Technology under the Gen. President-ship of Prof. Indraratne. I am also the founder of the School Inventors competition cum exhibition holds annually as a part of the SLAAS annual sessions. I was a member of the SLAAS Council consecutively from 1993 to date. Some of my activities related to are listed below.

1. **Chairman, Ethics Committee, Sri Lanka Association for the Advancement of Science (2019)**

2. **Chairman, Buildings Committee**, Sri Lanka Association for the Advancement of Science (2019, 2020) and completed the construction of Science Tower new Building on 2020.03.10.
3. **Vice-Chairman, Board of Trustees**, Sri Lanka Association for the Advancement of Science (2019)
4. **General President**, Sri Lanka Association for the Advancement of Science (2018)
5. **Chairman- Science and Technology Advisory Committee -SLAAS(2018)**
6. **General President-Elect -SLAAS(2017).**
7. **Chairman- House and Finance Committee -SLAAS(2017)**
8. **General Secretary**, Sri Lanka Association for the Advancement of Science (1993-1995) inclusive of Golden Jubilee year.
9. **Council member, Sri Lanka Association for the Advancement of Science (SLAAS) 1993-2020.**
10. **Secretary, Board of Management of the Media Resource Service (MRS)**, Sri Lanka, established to initiate better communication between journalists and scientists. 1994.
11. **Secretary, Advisory Committee of the Media Resource Service (MRS)**, Sri Lanka (1994/1995).
12. **Chairman, Committee for the Popularization of Science (CPS)** of the Sri Lanka Association for the Advancement of Science **in two years** 1998 & 1999.
13. **Chairman, Environment Committee (EC)** of the Sri Lanka Association for the Advancement of Science- 2000.
14. **Secretary – Board of Trustees (BOT)** of the Sri Lanka Association for the Advancement of Science **(2001-2005).**
15. **President Section E1 (Physical Sciences)**, Sri Lanka Association for the Advancement of Science-2002.
16. **Convener – Buildings Committee meeting – 2003.**
17. **Workshop coordinator-** SLAAS Workshop on lightning protection of persons, buildings and equipment (as a fund raising activity) – 2003.
18. **Secretary-International Relations** of the Sri Lanka Association for the Advancement of Science **(2003-2006).**
19. **Chairman, Media Resource Service (MRS)** Committee of the Sri Lanka Association for the Advancement of Science – 2015.
20. **Chairperson, School Inventors’ Competition Committee** of the Sri Lanka Association for the Advancement of Science (2007-2016).
21. Member, Environment Committee of the Sri Lanka Association for the Advancement of Science-SLAAS- (2007-2012).
22. Member, Committee for the Popularization of Science, SLAAS 2010-2015 (also served as a resource person for CPS science day programmes since 1984).
23. Committee Member, Section E1 of Sri Lanka Association for The Advancement of Science (SLAAS) -2011.
24. **Author of the SLAAS booklet on ‘Niwese Viduliya Anaturu Walakaganimu’ 1994.**
25. Elected as a Council member of the SLAAS from time to time from 1996 to date when there are no statutory positions.
26. **Represented SLAAS at the Indian Science Congress in January 1996 and in January 2003.**
27. Member of the 11 member committee appointed by the Hon Minister of Power and Irrigation to study and make recommendations regarding the advance of Sri Lanka Standard Time by one hour-SLAAS representative. (1996).
28. Member Astronomy Steering Committee of the SLAAS (1996).
29. SLAAS Council Nominee to the GRC award panel of judges-1996 and 1997.
30. Committee Member, 4 members Technical Evaluation Committee on the purchase of Rs 23 million worth 45 cm telescope to Arthur C. Clarke Centre for Modern Technologies. (Appointed by the Ministry of Industries, Science and Technology, 20.07.1994).
31. Committee Member of the 4-member committee which founded and implemented the SLASS

coordinated Mobile Science Exhibition Housed in three railway carriages in view of enhancing the awareness on Science and Technology among people in rural areas.

32. Member, GRC of SLAAS -2013.
33. Conducted more than 50-night sky observation camps using telescopes for schools all over the country as CPS activities.
34. Resource person to the SLAAS_EC seminar on environment education - Teachers Training college-Unawatuna(2011.11.02).
35. Member, SLAAS Fund raising committee, 2011.
36. Resource Person- SLAAS Theme seminar- Lightning risk management for sustainable development, Theme Seminar of Sri Lanka Assoc. Advent. (on Science for Sustainable Development and prosperity), 67th Annual Session, Colombo, Dec.10, 2012.
37. SLAAS Scientific Sessions Coordinator for 70th Technical Sessions held in Faculty of Science, University of Colombo (and similar support in almost all occasions when the Sessions were held in University of Colombo).
38. Member, Board of Trustees of SLAAS, 2019-2021.

A.6.2 ADMINISTRATIVE/POSITIONS HELD (OTHER THAN SLAAS) AS A CHAIRMAN/ PRESIDENT/ SECRETARY OR COORDINATOR

1. **Executive Secretary, World University Service, Sri Lanka Branch** (1984).
2. **Joint Secretary of the Institute of Physics, Sri Lanka** (1984/85 and 1985/1986).
3. **Asst. Secretary, Federation of University Teachers' Association (FUTA) 1995/96**
4. **Director, Community Services, Rotary Club of Colombo Central** (97/98 & 98/99 & 99/2000 with several awards obtained for conducting the best project).
5. Patron, and founder, Rocket and Space Science Society, Sri Lanka (2001 onwards).
6. **Chairman, Educational Development Committee of the Nalanda College Old Boys Association** 1998 and 1999.
7. **President, Rotary Club of Colombo Central** (2004/2005).
8. **Founder and National Coordinator of the Sri Lankan Astronomy and Astrophysics Olympiad-SLAAO** (commenced in 2007 and continue till to date).
9. **Patron, All Ceylon Buddhist Congress** (2007-to date).
10. **District Chairman- Environment Committee – Rotary International District 3200 - Sri Lanka** (2007/2008).
11. **Assistant District Governor-Rotary International District 3220, Sri Lanka** (2008/2009)
12. **President, Institute of Physics, Sri Lanka (IPSL) 2009-2010 and 2010-11.**
13. Immediate Past President, Institute of Physics, Sri Lanka (IPSL) 2011-12 and Vice President, IPSL 2013- 2014.
14. **Founder and National Coordinator of the Sri Lankan Junior Astronomy Olympiad-SLJAO** (commenced in 2011 and continue till to date).
15. **Founder and President–Methsaviya** with membership over 6000 (2003 to date).
16. **President, All Ceylon Avihimsa Ekabadda Maha Sammelanaya.** (2008-2010).
17. **Patron- Samastha Lanka Avihimsa Ekabadda Maha Sammelanaya** (2010 -2012).
18. **Chairman, Membership Committee of the Institute of Physics, Sri Lanka**(2011/12).
19. **Chairman/Director, Rotary Foundation of Rotary Colombo Central** (2011/2012).
20. **Chairman, Service Projects, Rotary Colombo Central** (2012-2015, 2019-2022).
21. **Chairman, Membership, Rotary Colombo Central** (2016/2017/2018).
22. **Chairman, Sahasak Nimayum National Inventors Competition - Energy and Transport sector (2015).**

23. **Chairman** of subsection and a member of the selection committee on selection of Presidential Awards of National Inventors' Commission 2015, 2016.
24. **Chairman, Local Organising Committee of the 23rd International Olympiad on Astronomy held in Sri Lanka from October 6-14, 2018.**

A.6.3 MEMBERSHIP OBTAINED/POSITIONED HELD IN INTERNATIONAL SOCIETIES/ COMMITTEES

- (i) Member, Royal Astronomical Society of Canada (17.01.1996).
- (ii) Member, The Planetary Society (07.02.1996).
- (iii) Member, New York Academy of Sciences.
- (iv) Member, British Astronomical society.
- (v) Member, International Board on Astronomy and Astrophysics Olympiad (IOAA) 2007- to date.
- (vi) Jury Member, International Olympiad on Astronomy (2012 to date).
- (vii) Member, International Committee on Space Research (COSPAR), 2013 to date.
- (viii) Secretary, South Asian Network on Astronomy Education (2014 to date).
- (ix) Member, International Meteor Organization-IMO(2019.08.07 to date)

A.6.4 CONTRIBUTIONS TO NATIONAL ACTIVITIES (OTHER THAN STATED ELSEWHERE)

1. **Member, Ministry of Science, Technology and Research Advisory Committee on the Sri Lanka Planetarium, 2017.02.01 to date.** (with a mandate to form the Department of National Planetarium and Observatory) (Activities conducted: Advisory panel on planetarium modernization project-2017-1018, selection and purchasing of 5 full-dome films for planetarium: 2019.08.008, technical support to the establishment Kulasinghe memorial Exploratorium with 30 hands-on items-2019.10.26, TEC and bid evaluation committees on purchasing mobile planetarium and a telescope to the planetarium-2019.11.22).
2. **2017 Member, Sri Lanka Planetrauin refurbishment committee.**
3. **Theme Leader, NSF activity on Establishment of a National Science Centre** -the 1st theme out of 12 -Big Bang to today (2014.07.30 to date).
4. **Chairman -Technical Expert Committee on Digital Full Dome 4D projector system installation of the Sri Lanka Planetarium (2015).**
5. **Jury member, Sahasak Nimayum National Inventors Competition organized by the Sri Lanka Inventors' Commission. (2014 - to date).**
6. **Member, National Coordinating Council for "Science for All" of Coordinating Secretariat for Science Technology and Innovation (COSTI) (2014-2016).**
7. **Member, COSTI committee on the establishment of the National Science Centre(2014).**
8. **Member of Lightning Disaster Management Apex body** appointed by the Minister of Disaster Management (2011-2014).
9. **Member, Standing Committee on General Education, National Education Commission (2012-2015).**
10. **Chief of the panel of Judges** on the CHOGM All Island School Oratorical Contest organized by the Ministry of Education and telecast on Sri Lanka Rupavahini Corporation (2013).
11. **Member, NASTEC Panel on the Review of the National Science Foundation (2013).**
12. **Member, National Committee on naming Cyclones** - coordinated by Department of Meteorology (2013).
13. **Committee Member, National Climate Programme Committee (20.05.94+).**
14. **Member, Presidential task force on Integrated Programme on Science and Technology (1998).**
15. **Member, NSF Sub-Committee on Establishing a National Olympiad Federation (2010-12-15).**

16. **Member, A/L Physics Syllabus Revision Committee** of National Institute of Education (2010-2011).
17. **Member, Telecommunications Regulatory Commission** of Sri Lanka Committee on Construction of Telecommunication Towers-Public Concerns regarding Safety - (2008-2010).
18. **Resource Person – UNESCO Regional Workshop** on Lightning Physics held in Sri Lanka. (2003).
19. **Working Committee on Science Education and Popularization**, National Science Foundation (1999).
20. **Departmental Review Committee**, Department of Physics, University of Sri Jayawardanapura (1997).
21. **Member of the Committee Appointed to Study and make recommendations regarding advancing the clock by an hour** - Ministry of Irrigation, Power and Energy (1996).
22. **Chief Examiner of the G.C.E. (A.L.) Examination:** supervised a panel of examiners evaluating answer scripts of the subject Physics (1992-1998) & 2020.

A.6.5 INTERNATIONAL/REGIONAL ACTIVITIES ATTENDED AS SRI LANKA-COUNTRY REPRESENTATIVE

- **Chairman-Local Organizing Committee of Hosting and conducting the 23rd International Astronomy Olympiad(IAO) 6-14 October 2018, Colombo, Sri Lanka** (This is the first-ever International Olympiad that hosted in Sri Lanka).
- **Country Representative**, Expert Group meeting on Scientific and Technological Culture, Commonwealth Secretariat and Commonwealth Science Council, Singapore (1997).
- **Country representative** + Sri Lanka country report on the management of Ozone Depletion Substances (ODS) phase-out in SMEs, Asian Regional Workshop on the management of Ozone Depletion Substances (ODS) phase-out in Small and Medium Scale Enterprises (SMEs), New Delhi, India, February 1995.
- **Country coordinator & Team leader** of the National Team to the 24th International Astronomy Olympiad(IAO), Romania, 2019.
- **Country coordinator & Team leader** of the National Team to the 11th International Olympiad on Astronomy and Astrophysics, Thailand, 2017.
- **Country coordinator & Team leader** of the National Team to the 10th International Olympiad on Astronomy and Astrophysics, India, 2016.
- **Country coordinator & Team leader** of the National Team to the 11th Asia Pacific Astronomy Olympiad (APAO), Bangladesh, 2015.
- **Country coordinator & Team leader** of the National Team to the 9th International Olympiad on Astronomy and Astrophysics, Indonesia, 2015
- **Country coordinator & Team leader** of the National Team to the 8th International Olympiad on Astronomy and Astrophysics, Romania, 2014
- **Country coordinator & Team leader** of the National Team to the 18th International Astronomy Olympiad(IAO), Lithuania, 2013.
- **Country coordinator & Team leader** of the National Team to the 7th International Olympiad on Astronomy and Astrophysics(IOAA), Greece, 2013.
- **Country coordinator & Team leader** of the National Team to the 17th International Astronomy Olympiad (IAO), South Korea, 2012.
- **Country coordinator & Team leader** of the National Team to the :
6th International Olympiad on Astronomy and Astrophysics(IOAA) in Brazil, 2012; **5th IOAA in Poland, 2011; 4th IOAA in China, 2010; 3rd IOAA in Iran, 2009; 2nd IOAA in Indonesia, 2008; and 1st IOAA in Thailand, 2007.**

A.6.6 POSITIONS HELD/SERVICES RENDERED IN THE DEVELOPMENT OF ASTRONOMY/GENERAL EDUCATION AND PSYCHOLOGICAL COUNSELLING

- Postgraduate Diploma in Psychological Counselling (University of Col.)
- Vice President, Sri Lanka National Institute of Professional Counsellors (SLNIPC)-2019
- Visiting lecturer on Human Psychology, IHRA, University of Colombo.
- Visiting lecturer on Abnormal Psychology, Institute of Psychological Studies.
- Ex. Council member, National Institute of Education
- Member, National Education Commission Working Group on Educational Reforms Former Senior Student counsellor & Director Student Affairs, University of Colombo
- **Resource person to the UNESCO-ACCIMT Teachers training programme on Astronomy** with the distribution of 75 Galilio telescopes (2010.11.04).
- **Resource person to NIE Teachers training programme** conducted at district level on new A/L physics curricula (2011).
- **Resource person - workshop on General Education Policy** – organized by National Education Commission (NEC) at Hotel Janaki (2013.06.13).
- **Resource person – NIE Workshop on preparing a question bank for AL(Advance Level)-2014**
- **Resource person - Workshop on Drafting National Policy on General Education - NEC-**held at Palm Village Hotel.(2014.08.28-29).
- **Resource Person- NIE Advanced Certificate Course for Grades 6-11 Science Teachers** 2015.02.06-12
- **Resource Person- Pre-Conference Workshop 2019 on “Aeronautical and Aerospace Engineering Applications for Sustainable Development of Sri Lanka”** organised by Organized by: Department of Aeronautical Engineering, Faculty of Engineering, General Sir John Kotelawala Defence University and talk on “Effect of space weather events on Aeronautical and Aerospace industry and the establishment of a space weather related geomagnetic storm measuring station in Sri Lanka” (2019.08.24)

A.6.7 OTHER POSITIONS HELD/SERVICES RENDERED

- (ii) **Trustee**, and founder member Sumathipala Nahimi Anusmarana Bavana Aspuwa, Knduboda, Delgoda (2002 onwards).
- (iii) **Vice President, Rotary Colombo Central** (2002/2003) with citation received for best Rotarian on four avenues of service from the Rotary International President.
- (iv) **Vice President, Institute of Physics, Sri Lanka** (1995/96).
- (v) **Board Member, Advisory Board of the Young Astronomers Association**, Sri Lanka (02.05.94-1998).
- (vi) **Life Member, United Nations Association** in the Democratic Socialist Republic of Sri Lanka (2000 onwards).
- (vii) **Resource person to the UNESCO-ACCIMT Teachers training programme on Astronomy** with a distribution of 75 Galilio telescopes (2010.11.04).
- (viii) **Main resource person - Lightning Safety Awareness program organized by DMC and Met. Dept** in Dehiowita and Ruwanwella Divisional Secretariat (2012)
- (ix) **Main resource person, ACCIMT Workshop on Introduction to Astronomy** – (2012.12.21-22)
- (x) **Panellist, Developing a Media Policy on Promoting and establishing an Innovative Culture in Sri Lanka** organized by Sri Lanka Inventors Commission (2017.08.31).

A.7 RESEARCH EXPERIENCE

A.7.I (A) Development of research capacity and institutional capability to locally award postgraduate degrees (by research) leading to MPhil and PhDs. (using the field of Atmospheric Physics, Thunderstorm Electricity and Lightning Physics at the Department of Physics, University of Colombo)

I graduated in 1983 and in 1984 became an Asst. Lecturer(probationary). At that time the existing research link established by Prof. M. L. T. Kannagara in the latter part of the 1970s with Uppsala University, Sweden has almost reached to an end due to the non-returning of PhD students sent to Sweden on Sandwich type programmes. At that time I decided to offer my self to get a locally awarded PhD in view of strengthening such capabilities in Sri Lanka. I joined the Atmospheric Research Group in 1986 and got registered for a local Mphil/PhD degree programme(and the break through was not so easy as there were no solid rules on local sandwich-type PhDs at that time and I were to suffer a lot from beurocratic problems till I received the PhD as the forerunner of local PhD progrmmes in Physics in Sri Lanka). I gradually started up to develop the Atmospheric research laboratory from nothing, i.e no equipment at all at the beginning. At that time my local supervisor Prof O. W. Jayaratne was the only group member. My Swedish supervisor Prof Sven Israleson and his research scientist Eng Edgar Knudseon visited Sri Lanka at a time many foreigners were reluctant to visit Sri Lanka due to terrorist propaganda. By the late 80s I was able to invite Prof Vernon Cooray of the Institute of High Voltage Research to Sri Lanka.. By 1990 the Atmospheric and Lightning research lab was built to the regional standards due to my sole efforts.

In 1992 I defended my PhD thesis **“On Fair Weather and Thunderstorm Electricity - basis for Construction of an Atmospheric Electrical Station in Sri Lanka” - University of Colombo, Sri Lanka; 1992”**.

(This was the 1st ever local PhD in Physics awarded by the Colombo University. The PhD work was performed both in Uppsala University (Institute of High Voltage Research + Dept. of Meteorology), Sweden and Colombo University, Sri Lanka, under a collaborative research link programme between the universities of Colombo, Sri Lanka and the Uppsala University, Sweden).

Up to the year 1998, I was the **group leader** of the Atmospheric Physics and Lightning research group. I had two challenges to meet a) Development of the research laboratory from the scratch to regional training standards & b) Recruiting new permanent members to the group.

By 1993-94, I was working alone in the group (with some research assistants) as Prof O.W Jayaratne too got retired. *(The page 10 of 1994 travel report issued by Prof. Lennart Hasselgrenthe Director/International Programme in the Physical Sciences(IPPS)written after his visit to Sri Lanka-. Extracts from the report are: “2.1.4 Atmosphere Physics/Lightning Research Group: Also for this group, the progress has been slower than expected but improved tremendously during the last years. IPPS started the support to this group in 1977/78 and out of totally 6 people so far trained through IPPS, there are only one left(viz. Dr Chandana Jayaratne) in the group and one that has retired (Viz. Prof O W Jayaratne) ...”*

Soon after my PhD I was able to recruit three 1st class Physics special degree students (R Lelewala, IMK Fernando and G A C Gomes) and convince them to register for a local PhD degree programme and to do research under the collaborative research link between the universities of Uppsala, Sweden and Colombo, Sri Lanka(while all of them were having the good opportunities to go to USA for their PhDs they agreed to join and today all of them were serving the Department of Physics as Senior Lecturers. During my tenure of group leadership, millions worth grants were received from the IPPS, Sweden (both for personnel development and equipment) was taken. The amount received up to 1993 was Swedish Kronor 2102873 (more than Rs 20 million) (please read one of my annual reports(1998) written to IPPS- Sweden)

Amount of time that I spent on procurement of equipment, preparation of project reports and grants requests, strengthening international collaborations, providing local hospitality to visiting foreign scientists under the collaborative research link programme, supervising the PhD students and look into the related beurocratic work, conducting research work day-and-night in the case of lightning, for nearly a period of 15 years has paved the way for future generation in this country to conduct research in lightning and atmospheric physics and to obtain PhDs locally in this filed (particularly at a time when everyone was scared to get a local PhD degree).

Today the atmospheric and lightning research group is functioning with sufficient manpower and advance lab equipment, serving locally as well as regionally with special attention to lightning physics and lightning protection. Acquiring the local capability of awarding MPhils and PhDs degrees too has given a tremendous boost to the development of research capabilities within the university and in the country.

A.7.I (B) NO. OF RESEARCH STUDENTS SUPERVISED COMPLETED

PhD

- a. Mode Identification of Oscillations of Delta-Scuti Stars using Multicolor Photometry and High Resolution Spectroscopy, Janaka Addasuruya, March 2021; Supervised by Prof K P S C Jayaratne and Prof Sashikaan Ganesh (Astronomy and Astrophysics Division, Physical Research Laboratory, Ahmedabad 3800090, India).
- b. Development of a simulation model for a communication tower to mitigate lightning hazards, M U. Mendis, Dec. 2019; Supervised by Prof. K P S C Jayaratne and Prof. Rohan Lucas.
- c. Studies on the basic atmospheric electrical parameters of fair-weather and related processes in the electrode layer, R. Lelwala, University of Colombo, April-2001; Supervised by Dr. K P S C Jayaratne and Prof. Sven Israelsson.
- d. On the nature of Lightning with special attention to remote sensing of lightning current, G A C Gomes, University of Colombo, August 1999. Supervised by Dr. K P S C Jayaratne and Prof. Vernon Cooray.
- e. Measurements and Analysis of Fast Transient Electromagnetic Fields Generated by Ground and Cloud Flashes with Special Attention to Lightning Direction Finding, by I M K Fernando, University of Colombo (2001); Supervised by Dr. K P S C Jayaratne, Prof. Vernon Cooray and at a later stage (in 1999) Prof. D U J Sonnadara's name too was added.

M.Phil/MTech

- a. Study of the Binary System V367 Cygni, by R A S Saraj Gunasekera, Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP) in Dehradun, India, December 2011, Supervised by Prof. K P S C Jayaratne and Prof. N M Ashok of Ahamadabad, India.
- b. Photometric Study of Short Period Variable Stars by Janaka Addasuriya, Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP) in Dehradun, India, July 2015, Supervised by Prof. K P S C Jayaratne and Shashikiran Ganesh of Physical Research Laboratory, Ahamadabad, India
- c. A search for extrasolar planets around M-type dwarf stars, by M V Y Herath supervised by Prof K P S C Jayaratne and Mr. Saraj Gunasekera (September 2021)
- d. Establishment of a wide field telescopic system compatible with the All-Sky camera network for observing Near Earth Objects (NEO) entering into the atmosphere near Sri Lankan sky by Subath Amaradasa and supervised by Prof. GDK Mahanama, Prof KPSC Jayaratne and Prof Chandra Wickramasinghe (August 2021).

M.Sc

- a. Effect of Sea Surface Temperature (SST) and outgoing longwave radiation (OLR) on convective activity in the Indian Ocean Region, N R Wijesekera, University of Colombo, September-1995, Supervised by Dr. W. L. Sumathipala and Dr. K P S C Jayaratne.
- c. Impact of Ecological Factors on Crop Environment and Productivity of Tea Lands in Sri Lanka, M K S L D Amrathunga, University of Colombo, May-2000, Supervised by Dr. K P S C Jayaratne and Dr. M A Wijeratne
- d. Variation of ozone column density over Sri Lanka using solar UV radiation received at ground level, J A P Bodhika, , University of Colombo July 2004. Supervised by Dr. K P S C Jayaratne
- e. Effect of El Nino on Sri Lanka by G M R D Aponsu, University of Colombo July 2004. Supervised by Dr. K P S C Jayaratne

- f. Effect of solar activity on weather changes and occurrence of extreme events, I J C Fernando, University of Colombo, April 2007. Supervised by Dr. K P S C Jayaratne
- g. Effectiveness of Astronomical night sky observation camps for the development of astronomical knowledge of grade 9 students, K R M G Karunaratne, University of Colombo, October 2011, Supervised by Dr. K P S C Jayaratne
- h. On the Study of Property Damages Due to Lightning in Sri Lanka, A.W.M.B. Wijekoon, Supervised by M.A.R.M. Fernando of Faculty of Engineering, Peradeniya University and Prof. K P S C Jayaratne February, 2014
- i. Development of an upper-air meteorological data gathering system using aircraft data acquisition techniques, W.S.I.J. PERERA, University of Colombo March 2013,. Supervised by Prof. K P S C Jayaratne
- j. Effect of meteoritic dust on the variation of global rainfall, Upali Jayasinghe, University of Colombo February 2013. Supervised by Prof. K P S C Jayaratne
- k. Developing a statistical model to predict the rainfall at onset of Maha season in the eastern part of the dry zone in Sri Lanka, AMAHD Alagiyawanna, University of Colombo March 2013. Supervised by Prof. K P S C Jayaratne and Mr. K H M S Premalal.
- l. Use of satellite imagery as a tool for specifying precipitation based climatic conditions in Sri Lanka, K M Silva, University of Colombo March 2013. Supervised by Prof. K P S C Jayaratne and Ms Shiromani Jayawardena

CONTINUING MPhil/PhD PROGRAMMES

Name	Degree	Title	Date of Registration
Mr. K L I Gunawardhana	PhD(Full time)	Study of Gamma-ray Emission from the BLAZAR 1ES 2200+420	2015.08.11 2022.12.19
Mr. S A T U W K Suraweera	MPhil(Part -time)	Spatial mapping of radiofrequency electromagnetic radiation levels in Sri Lanka due to communication towers and wireless networks	2015.06.09
Mr. K G C Weerasekera	PhD(Part time)	Influence of Dark Energy on Gravitational Lensing	2015.05.12
L K M I Randu	MPhil (Full Time)	Constructing BLAZAR high energy emission model using temporal correlation between MeV and GeV flux	2018.02.12
A. D. Manjula Ranasinghe	PhD(Part Time)	Establishment of a Geomagnetic Field Measuring Station in Sri Lanka and Study of Characteristics of Geomagnetic Field and Equatorial Electro Jet (EEJ) Variation with solar activity	2018.01.01
Saumya Kumari	MPhil(Full Time)	Thermal Modeling of Cometary Nuclei to Monitor Volatile Sublimation Driven Evolution of the Nuclear Shape and Rotation	2018.07.13
Jayasooriya Kankanamge Hansana Madushan	MPhil	On the study of Sun-Moon relative position on Earth's weather changes	2019.07.30
S. B. Bamunuarachchige	MPhil	Correlation between solar activity and precipitation on Earth	2020.01.22
H. S. Chathuranga Peries	MPhil	On the study of the Urban Canyon's height-to-width ratio and nocturnal heat island effect in Colombo	2020.01.22

K Lakshani Madubhashni	MPhil	An Investigation into Sympathetic Flaring on the Sun in Relation to Other Solar Phenomena	2021.04.24
Maduranthahan Viveganadam	MPhil	Design and construction of compact high-resolution spectrograph with remote control facility for small telescopes	2022.07.04

A.7.II NO. OF GRANTS RECEIVED

1. International Programme on Physical Sciences, Uppsala, Sweden 1986-1998 on Postgraduate Infrastructure and capacity building in the field of Atmospheric Physics and Lightning Physics - **Swedish Kronor 2102873 (more than LKR 41 million).**
2. Postgraduate capacity building – To initiate MSc programme in Atmospheric Physics and Dynamical Meteorology- the first postgraduate degree programme started at the Department of Physics, University of Colombo -ADB grant (2000) **US \$ 353000 (LKR 63 million)**
3. Strengthening the lightning protection research in Sri Lanka, HETC Project – QIG – Window 3 (2013-2015) **LKR 6,000,000.00**
4. “Establishment of a geomagnetic field measuring station in Sri Lanka” NRC Grant No. 16-098 in 2016 **LKR 1,441,900.00**
5. MAGDAS9 magnetometer installation from Space and Earth Electromagnetism Laboratory, Department of Earth and Planetary Sciences, Graduate School of Sciences, Kyushu University Hakozaki, Fukuoka, Japan 2016, **LKR 5,000,000.00**
6. “Establishment of a wide field telescopic system compatible with the All-Sky camera network for observing Near Earth Objects (NEO) entering into the atmosphere near Sri Lankan sky” NRC Grant 16-012, 2016, **LKR 3,748,000.00**
7. NSF Equipment Grant RG/2016/EQ/12 received in 2017 to purchase a Selective Radiation Meter **LKR 2,100,000.00**
8. Change education towards STEM education through inquiry-based learning for Sri Lankan schools -A project conducted by the Science & Technology advisory committee (STAC) of the Sri Lanka Association for Advancement of Science (SLAAS) in collaboration with the Ministry of Education, Sri Lanka and the Ministry of Science, Technology, Research, 2018, Ministry Grant of **LKR 12,400,000.00.**
9. Development of a mobile-based contact tracing and tracking mobile application (app) “SWARAKSHA” to mitigate COVID-19 and similar pandemics. NRC Rapid Response Grant-RD Interventions against COVID-19. Grant No. NRC CVD 20-05 for **LKR 250,000.00**
10. On the study of Sun-Moon relative position on Earth’s weather changes. Investigator Driven Grants 2020- NRC Grant No. 20-219 signed on 2022.03.09 for **LKR 1,900,000.00.**

A.7.III JOURNAL PUBLICATIONS

1. AlphaTg: GUI application for flux and limb derivatives of UVRI, Kepler and TESS pass-bands for asteroseismology, J.Adassuriya, K.Sellahewa, K.P.S.C.Jayaratne, and S.Ganesh, Elsevier, Astronomy and Computing 42, pp1-8, (2022) <https://doi.org/10.1016/j.ascom.2022.100670>
2. Short-time variation in atmospheric pressure, humidity, and temperature during the annular solar eclipse of December 2019 in Sri Lanka. Madushan, H., Jayaratne, C., and Wijemannage, A., Science, Engineering and Health Studies, 16, 22020003 (2022).
3. Analytical Study of Urban Heat Spot Patterns in Colombo District from 1988 – 2019 based on Landsat Data, Saumya Chathuranga, and Chandana Jayaratne, Int. J. Dis. Manag. 5:1, pp 15-34, (2022). <https://doi.org/10.24815/ijdm.v5i1.24081>.

4. Identifying Variable Stars from Kepler Data Using Machine Learning, J Adassuriya, JANSS Jayasinghe, KPSC Jayaratne, *European J. of Applied Physics*, 332-37, (2021).
5. Seasonal variation of inter-hemispheric field-aligned currents deduced from time-series analysis of the equatorial geomagnetic field data during solar cycle 23–24, Manjula Ranasinghe, Akiko Fujimoto, Akimasa Yoshikawa & Chandana Jayaratne, *Earth, Planets and Space*, 73, 146 (2021). <https://doi.org/10.1186/s40623-021-01481-6>
6. Asteroseismology of SZ Lyn using multiband high time resolution photometry from ground and space, J Adassuriya, S Ganesh, J L Gutiérrez, G Handler, Santosh Joshi, K P S C Jayaratne, and K S Baliyan, *Monthly Notices of the Royal Astronomical Society*, Volume 502, , Issue 1, 541–555, March 2021. <https://doi.org/10.1093/mnras/staa3923>.
7. Determination of oscillation frequencies and stellar properties of three Delta Scuti variable stars using Kepler data, J. Adassuriya, K.P.S.C. Jayaratne, P.T.L.V. Cooray and M. L. C. Attygalle , *Journal of the National Science Foundation of Sri Lanka*, 48(4),367-378, 2020.
8. Characterizing the possible interior structures of the nearby Exoplanets Proxima Centauri b and Ross-128 b", Mahesh Herath, Saraj Gunasekera, and Chandana Jayaratne, *Monthly Notices of the Royal Astronomical Society(MNRAS)*, Volume 500, , Issue 1, 333-354, 15th Oct., 2020.
9. A Robotic Camera for Monitoring Meteors Entering the Earth's Atmosphere near the Equator H.D.S. Amaradasa, G.D.K. Mahanama, S.S. Abeywickrama, A.G.P.D. Alahakoon, K.P.S.C. Jayaratne, N.C. Wickramasinghe, *Advances in Astrophysics*, Vol. 4, No. 3, 86-95, August 2019
10. Two temperate sub-Neptunes transiting the star EPIC 21273744, Mahesh Herath, Tobias C. Hinse, John H. Livingston , Jes'us Hern'andez, Daniel F. Evans, Robert Wells , Saraj Gunasekera, Jeremy Tregloan-Reed, Markus Rabus , Jesper Skottfelt, Martin Dominik , Uffe G. Jørgensen, Chandana Jayaratne and Cuc T. K. L'ý, *Monthly Notices of the Royal Astronomical Society(MNRAS)*, Volume 488, Issue 1, 536-546, 14th June 2019.
11. Light travel time effect of the binary orbit of SZ Lyn, J. Adassuriya, K.P.S. C. Jayaratne, and S. Ganesh, *J. Sri Lanka Assoc. Advmt. Sci.*, 1, 54-65, 2018.
12. Analysis of type II and type III solar radio bursts, J.V. Wijesekera, K. P. S. C. Jayaratne and J. Adassuriya, *J. Phys.: Conf. Ser.*, 1005, 012046, 2018.
13. Transient Impedance Characteristics of Soil and Sand, M Udara Mendis, KPS Chandana Jayaratne, S. Nanayakkara, Mahubur Rahman, *Int. J. Innovation in Science and Mathematics*, Vol. 4, Issue 4, pp. 150-154, July 2016.
14. A Method to Estimate the Cooling Time of Ultra-Relativistic Electrons in Pulsar Wind Nebulae, K. L. I. Gunawardhana, K. P. S. C. Jayaratne, J. Adassuriya. *American Journal of Astronomy and Astrophysics*. Vol. 3, No. 3, 63-69, 2015.
15. Study of Property Damages Due to Lightning in Sri Lanka, A.W.M.B. Wijekoon, M.A.R.M. Fernando and K.P.S.C. Jayaratne, *Transactions of Institution of Engineers(SL)*, Vol.1, Part B, pp 464-471,2011.
16. Locating cloud to ground lightning flashes with simultaneous two station measurements, DUJ Sonnadara, AB Weerasekera, IMK Fernando, R Lelwela, KPSC Jayaratne, TR Ariyaratne, S. Namasivayam & KRA Bandara, *Sri Lanka Journal of Physics* Vol 1(2000) 11-22.
17. Study of the Performance of Direction Finding Stations Prior to the Implementation of a Lightning Locating System in Sri Lanka, IMK Fernando, DUJ Sonnadara, KPSC Jayaratne, TR Ariyaratne, S. Namasivayam & KRA Bandara, *Ceylon Journal of Science* 5, pp 65-73 (1998)
18. Comparison of preliminary breakdown pulses observed in Sweden and in Sri Lanka, Chandima. Gomes, Vernon Cooray and Chandana Jayaratne, *J. Atmos. Solar-Terr. Phys.*, 60(10), 975-979, 1998.
19. Measurement of space charge density over flat ground in the nearly neutral stratified atmospheric surface layer, R. Lelwala, S. Israelsson and K. P. S. C. Jayaratne, *J. Atmos. Electricity.*, 17(02),59-68, 1997
20. Some characteristic features of radiation field signatures from tropical cloud flashes, K. P. S. C. Jayaratne and W. J. M. Samaranayake, *J. Inst. Phys.*, Sri Lanka; 11(B), 1, 1995.
21. Power frequency characteristics and over-voltage disturbances (impulses) in 230 VAC electric power distribution systems in Colombo, Sri Lanka, K. P. S. C. Jayaratne and A.G. Dayananda, *J. Inst. Phys.*, Sri Lanka; 11(B), 3, 1995.

22. Characteristics of lightning flashes observed in Sri Lanka in the tropics, V. Cooray and K. P. S. C. Jayaratne, *J. Geophys. Res.*, 99, 21051-21056, 1994.
23. The lightning HF radiation at 3 MHz during leader and return stroke processes, K. P. S. C. Jayaratne and V. Cooray, *J. Atmos. Terr. Phys.*, 56(4), 493-501, 1994.
24. A radiation technique for the measurement of wave activity on seashore, K. P. S. C. Jayaratne, P. R. D. Rajapakse and K. G. Dharmawardane, *J. Inst. Phys.*, Sri Lanka; 2, 18-22, Colombo, 1986.
25. Preliminary studies of the earth's fair-weather electric field in Sri Lanka, K. P. S. C. Jayaratne and A. S. Dissanayake, *J. Inst. Phys.*, Sri Lanka, 2, 23-28, Colombo, 1986.
26. An investigation of sources of errors by space charge measurements using the Obolensky filter method, E. Knudsen, K. P. S. C. Jayaratne and S. Israelsson, *J. Atmos. Terr. Phys.*, 51(6), 529-531, 1989.

A.7.IV FULL PAPERS/ABSTRACTS OF PRESENTATIONS AT INTERNATIONAL SCIENTIFIC MEETINGS

27. Long wave antenna design for CALLISTO system, S. Liyanaarachchi, J. Adassuriya, and K P S C Jayaratne, *2021 From Innovation To Impact (FITI)*, 2021, pp. 1-5, IEEE publication, doi: 10.1109/FITI54902.2021.9833069.
28. Study of temporal variation of radiofrequency electromagnetic radiation levels in two bedrooms in urban and rural locations in Sri Lanka – a case study, S.A.T.U.W.K. Suraweera and K.P.S.C. Jayaratne, *Int. Conf. Multidisciplinary Approaches in Science 2021*, Faculty of Science, University of Colombo, ICMAS-C033, p 104, Dec 24-26, 2021. URL: <https://science.cmb.ac.lk/icmas2021/> icmas/conference-tracks/advances-in-basic-sciences-towards-technological-development/
29. Modelling Exoplanet interiors: The structures of Proxima b, Bernard Star b and Ross-128 b, M.V.Y. Herath., S. Gunesequera., K.P.S.C. Jayaratne., 43rd COSPAR scientific assembly 2021, Sydney, Australia (Oral).
30. Development of a Low-Cost Transducer with Data Acquisition Software for the Continuous Measurement of Greenhouse Gas Percentages in Sri Lanka, H.G.K. Abeywickrama and K.P.S.C. Jayaratne, *Proc. of the 25th Int. Forestry and Environment Symposium* 25, 50, Jan 2021.
31. Mendis, M.U., Chandana Jayaratne, K.P.S. “Lightning transient on neighbourhoods of communication towers: a simulation case study” *Asia-Pacific International Conference on Lightning*, Hong Kong, 2019, P. ID147.
32. Observations of transiting exoplanets around host stars with near-by companions, M.V.Y Herath., T. C Hinse., K.P.S.C Jayaratne., S. Gunesequera., 2019, “, *European Planetary Science Congress 2019*, Geneva, Switzerland. URL:<https://meetingorganizer.copernicus.org/EPSC-DPS2019/EPSC-DPS2019-1847-1.pdf>
33. Gihan Weerasekara, Thulsi Wickramasinghe and Chandana Jayaratne, The significance of the peculiar motions of the objects in the gravitational lensing time delay calculations, *30th Texas Symposium on Relativistic Astrophysics*, December 2019, Portsmouth, United Kingdom.
34. Herath M. V. Y, Hinse T. C., Jayaratne K.P.S.C., Gunesequera S., “Possible discovery of two Mini-Neptune type planets around a dim K-star”, *European Planetary Science Congress*, 2018, Berlin, Germany.(<https://meetingorganizer.copernicus.org/EPSC2018/EPSC2018-244.pdf>)
35. Astrossiometry of SZ Lyn using very high-resolution photometry in BVR bands, Janaka Adassuriya, Chandana Jayaratne, & Shashikiran Ganesh. *Asteroseismology of SZ Lyn using very high time resolution photometry in BVR bands*. Zenodo. *Physics of Oscillating Stars (PHOST)*, Banyuls-sur-mer, France, 2-7 September 2018, published in <http://doi.org/10.5281/zenodo.1463699> Oct. 2018.
36. Installation of a MAGDAS-9 magnetometer in Sri Lanka to measure magnetic field variations near the dip equator, K P S C Jayaratne, A D M P Ranasinghe and A. Yoshikawa, *6th Conference on Sri Lanka-Japan Collaborative Research-2018*, 1st of September 2018, Peradeniya, Sri Lanka.

37. A spectral analysis of the BL-Lac type AGN 1ES 1959+650 in the X-ray and Gamma ray energy bands, M.V.Y. Herath, A U Abeysekra, and K.P.S.C Jayaratne., National Astronomy Meeting 2017, Hull, United Kingdom. URL: <https://nam2017.org/schedule-by-session/form/27/369-a-spectral-analysis-of-the-bl-lac-type-agn-1es-1959-650-in-the-x-r-ay-and-gamma-ray-energy-band>
38. On the Calculation of the Time Delay Between Gravitationally Lensed Images When Peculiar Motions are into Account, Gihan Weerasekra, Thulsi Wickramasinghe and Chandana Jayaratne, 4th Conf. of the Polish Society on Relativity, September 2017.
39. Calculation of a more realistic value for the time delay between gravitationally lensed images when the peculiar motion of the lenses and of the source is considered, Gihan Weerasekra, Thulsi Wickramasinghe and Chandana Jayaratne, Abstract 161, 29th Int. Texas Sym. on Relativistic Astrophysics. CTICC, Cape Town, South Africa, Dec. 2017.
40. Effects of lightning and possible health hazards due to the erection of telecommunication towers, J A K Maduranga, S R D Kalingamudali and K P S C Jayaratne, Proc. Wayamba University Int.Conf., p 248, Aug.19-20, 2016.
41. Short and long term flux variability of the BL Lacertae object 1ES 2200+420, in the MeV - GeV range Abstract., Mahesh Herath, Anushka Abeysekara , Chandana Jayaratne, Proc. American Physics Society Meeting, Vol. 61, No. 6 BAPS.2016.APR.T1.58, April 16–19, 2016.
42. A Preliminary Study on Lightning Protection of houses in the proximity of a 70 m tall Communication Tower in Sri Lanka M Udara Mendis and K P S Chandana Jayaratne, Proc. Asia-Pacific Int. Conf. on Lightning (APL), Nagoya, Japan, pp 1015 -1019, Oct 2015.
43. Effect of solar activity on the occurrence of weather extreme events, K. P. S. Chandana Jayaratne and Joe C. Fernando, 26th IAGA Workshop on Geomagnetic Observatory Instruments, Data Acquisition and Processing, , Hyderabad, India, Oct 7-16, 2014.
44. Long term variation of lightning casualties in Sri Lanka: from 1958-2009, K. P. S. C. Jayaratne and L. S. L. Dias, *6th International Programme Committee meeting and Scientific Seminar on SAARC STORM Field Experiments, Hotel Renuka, Colombo, 20-21 Dec. 2013.*
45. Development of a new image processing technique to identify real time meteoroid hits on lunar surface using space-based or earth-based telescopic images, K P S Chandana Jayaratne & A P C Sudeera Jayasekara, 1st COSPAR Symposium on “Planetary Systems of our Sun and other Stars, and the Future of Space Astronomy.”, Bangkok, Thailand,1-3P, Nov.11-15, 2013.
46. Effect of solar activity on weather changes and occurrence of extreme event cyclones, Joe C. Fernando and K.P.S. Chandana Jayaratne, 1st COSPAR Symposium on “Planetary Systems of our Sun and other Stars, and the Future of Space Astronomy.”, Bangkok, Thailand, p18, Nov.11-15, 2013.
47. Public Perceptions and Lightning Safety Education in Sri Lanka, K. P. S. Chandana Jayaratne and Chandima Gomes, Proc. Int. Conf. Lightning Protection(ICLP),Vienna, Austria, September 2012.
48. Survey on Property Damages Due to Lightning in Sri Lanka, A.W.M.B. Wijekoon, M.A.R.M. Fernando and K.P.S.C. Jayaratne, International Conference on Communication Computation, Management and nanotechnology (ICN - 2011, REC Bhalki, India, p 42, September 2011.
49. Buddhism and Science, Dr. Chandana Jayaratne, Proc. 1st International Buddhist Conference on “The Buddhist Way for a Better World”, Temple of Tooth Relic, Kandy Sri Lanka, 11-12 Aug. 2006.
50. Cloud Charging Mechanisms, K P S C Jayaratne, UNESCO Regional Workshop on Lightning Physics, 23.04 -07.05.2003, Colombo, Sri Lanka,,2003.
51. Effect of wind on horizontal wire antenna collecting atmospheric air-earth current, R. Lelwala, T. J. Tuomi, S. Israelsson and K. P. S. C. Jayaratne, Proc. 11th Int. Conf. Atmos. Electricity, 610-613, Alabama, USA, June 1999.

52. Astronomy in Sri Lanka, K. P. S. Chandana Jayaratne & G. H. P. Dharmaratne, Seminars of the United Nations Programmes on Space Applications - Selected Papers on Space Science Education, Remote Sensing and Small Satellites, 8, 95-98, United Nations, 1997.
53. Comparison of preliminary breakdown pulses observed in Sweden in the temperate regions and that in Sri Lanka in the tropics, G. A. C. Gomes, Vernon Cooray and K. P. S. C. Jayaratne, Proc. 10th Int. Symposium on High Voltage Eng. Montreal, Canada, 237-240, Aug. 1997.
54. Scientific and technological culture in Sri Lanka-country report, K.P.S.C. Jayaratne, Expert Group Meeting on Training to Popularise Scientific and Technological Culture organised by the Commonwealth Secretariat, AMIC, Singapore, 28-31 May, 1997.
55. Measurement of space charge density over flat ground in nearly neutral stratified atmospheric surface layer, R. Lelwala, S. Israelsson and K. P. S. C. Jayaratne, Proc. 10th Int. Conf. Atmos. Electricity, Osaka, Japan, pp. 168-171, June 1996.
56. Observation of huge globular shape regions of subatomic particles churned up by Jupiter Shoemaker-Levy 9 impact using 28 cm reflector telescope and a video camera, K. P. S. C. Jayaratne, Proc. 5th United Nations/European Space Agency Workshop on Basic Space Science - From Small Telescopes to Space Missions, Session 10, Jan 11-13, 1996.
57. Use of electronic and print media in Sri Lanka to educate the public & school children on astronomy from grass root level, K. P. S. C. Jayaratne, Proc. 5th United Nations/European Space Agency Workshop on Basic Space Science - From Small Telescopes to Space Missions, Session 03, Jan 11-13, 1996.
58. Sri Lanka country report on management of Ozone Depletion Substances (ODS) phase-out in Small and Medium Scale Enterprises (SMEs), K. P. S. C. Jayaratne, Proc. Asian Regional Workshop on Ozone Depletion & ODS Phase-Out in SMEs, New Delhi, India, 7 - 10 February, 1995.
59. Effect of nearby grounded objects on the measurement of atmospheric small ions, K. P. S. C. Jayaratne, E. Knudsen and S. Israelsson, Proc. 9th Int. Conf. Atmos. Electricity, Leningrad, USSR, pp. 611-614, June 1992.
60. Electrical aspects of severe local storms in the tropics, K. P. S. C. Jayaratne, Proc. SAARC Regional Seminar on Severe Local Storms, Colombo, Sri Lanka, 7 - 11 October, 1991.
61. The effect of distorted atmospheric electric field lines on the measurement of small ion number densities and related electrical parameters, K. P. S. C. Jayaratne, E. Knudsen and S. Israelsson, 8th Int. Conf. Electrostatics, Oxford, U.K., 1991.
62. Effect of propagation across a coast line on the electromagnetic fields from lightning return strokes, K. P. S. C. Jayaratne and Vernon Cooray, Proc. 20th Int. Conf. Lightning Protection, Interlaken, Switzerland, pp. 6.1/1-6, 1990.

A.7.V ABSTRACTS / FULL PAPERS OF PRESENTATION AT SCIENTIFIC MEETINGS IN SRI LANKA

63. High Energy Gamma-ray fluxes in MeV and GeV regions of six BL-lac Objects during the period of 2008 – 2012, L.P.M.I. Randu, and K.P.S.C. Jayaratne, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, 311, Nov. 17, 2022.
64. Radiofrequency pollution levels in Colombo city area due to cellular networks and Wi-Fi sources, S.A.T.U.W.K. Suraweera and K.P.S.C Jayaratne, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, 310, Nov. 17, 2022.

65. The Dynamicity of Vegetation Distribution against the Land Surface Temperature in the Colombo Metropolitan Area from 1988-2019, Saumya Chathurangal and K. P. S. C. Jayaratne, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, 308, Nov. 17, 2022.
66. Study the connection between orbital and superorbital flux of the LS I +61° 303 object, K. L. Isuru Gunawardhana, K.P.S.C. Jayaratne, and A.U. Abeyssekara, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, 307, Nov. 17, 2022.
67. A case study on the increase of RF levels in the proximity of a mobile phone when making and receiving a call, S. A. T. U. W. K. Suraweera and K.P.S.C. Jayaratne, 77th Proc. Sri Lanka Assoc. Advmt. Sci., E1, P.58, Dec. 2021.
68. EM pollution in the proximity of a transmission tower located in a highly residential area: A case study, S. A. T. U. W. K. Suraweera and K.P.S.C. Jayaratne, 76th Proc. Sri Lanka Assoc. Advmt. Sci., E1-513, Dec. 2020.
69. Constraint of a light curve simulation to measure weighted cross-correlation of MeV and GeV Fluxes, L. P. M. I. Randu and K.P.S.C. Jayaratne, 76th Proc. Sri Lanka Assoc. Advmt. Sci., E1-512, Dec. 2020.
70. A numerical model that could determine the evolution of shape and rotation of cometary nuclei due to sublimation of cometary ice, A. P. S. Kumari, N. H. Samarasingha, and K.P.S.C. Jayaratne, N.C. Wickramasinghe, 76th Proc. Sri Lanka Assoc. Advmt. Sci., E1-511, Dec. 2020.
71. Oscillation frequencies of two Delta Scuti stars; KIC 4077032 and KIC 8623953, J. Adassuriya and K.P.S.C. Jayaratne, 76th Proc. Sri Lanka Assoc. Advmt. Sci., E1-510, Dec. 2020.
72. Characterization of Aluminium reflective thin films deposited by a modified thermal evaporator designed for coating telescope optics, H D S Amaradasa, A G P D. Alahakoon, K G Samarathna, S S Abeywickrama, G D K Mahanama, K P S C Jayaratne, N C Wickramasinghe, 36th Proc. of the Institute of Physics, Sri Lanka, pp 3-8, August 2020.
73. A case study on the impact of geomagnetic storm of 7 - 8 September 2017 on geomagnetic field around Sri Lanka, A. D. Manjula P. Ranasinghe, K. P. S. Chandana Jayaratne and Akimasa Yoshikawa, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, 233, Nov. 22, 2019.
74. On the significance of the motions in the gravitational lensing time delays Gihan Weerasekara, K P S Chandana Jayaratne, and Thulsi Wickramasinghe, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, 239, Nov. 22, 2019.
75. Thermal Modeling of Cometary Nuclei to Monitor Volatile Sublimation Driven Evolution of the Nuclear Shape and Rotation. Saumya Kumari Pathirana, K. P. S. Chandana Jayaratne and Nalin H. Samarasingha, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, 222, Nov. 22, 2019.
76. Orbital elements of SZ Lyn, J Adassuriya, K.P.S.C. Jayaratne, S. Ganesh, 74th Proc. Sri Lanka Assoc. Advmt. Sci., E1-509, Dec. 2018
77. Preliminary studies of data and measurements from MAGDAS-9 magnetometer in Sri Lanka, A D M P Ranasinghe, K.P.S.C. Jayaratne, A Yoshikawa, 74th Proc. Sri Lanka Assoc. Advmt. Sci., E1-513, Dec. 2018.
78. Development of an autonomous wide-field camera unit for monitoring optical transients that occur in the atmosphere, H.D.S.Amaradasa, G.D.K.Mahanama, S.S.Abeywickrama, A.G.P.D.Alahakoon K.P.S.C. Jayarathna, N.C.Wickramasinghe, 74th Proc. Sri Lanka Assoc. Advmt. Sci., E1-517, Dec. 2018.
79. Space Science and Technology Applications for Sustainable Development, K P S Chandana Jayaratne, 74th Proc. Sri Lanka Assoc. Advmt. Sci., Part-ii, pp 1-7, Dec. 2018.
80. The effect of peculiar motion of galaxies when calculating the gravitational lensing time delay, G. Weerasekara, T. Wickramasinghe, and K. P. S. C. Jayaratne, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, Nov. 09, 2018.
81. Daily-binned GeV Gamma-Ray flux variability of BL Lacertae object from 2011 – 2017, K. L. I. Gunawardhana, K. P. S. C. Jayaratne, A.U. Abeyssekara, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, Nov. 09, 2018.

82. Establishment of a MAGDAS-9 magnetometer in Sri Lanka and study of magnitude of daily geomagnetic variation around Sri Lanka, A. D. M. P. Ranasinghe, K. P. S. C. Jayaratne, A. Yoshikawa, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, Nov. 09, 2018.
83. Determination of oscillation frequencies of Delta Scuti star KIC 1162150, J. Adassuriya, K. P. S. C. Jayaratne, P. T. L. V. Cooray, M. L. C. Attygalle, Proc. Annual Res. Symposium, University of Colombo, Sri Lanka, Nov. 09, 2018.
84. On the study of umbra-penumbra size ratio of sunspots using image processing techniques, S.B.Bamunuarachchige and K.P.S.Chandana Jayaratne, 34th Proc. of the Institute of Physics, Sri Lanka, pp 37-44, March 2018.
85. A study on the genesis and nature of granules on the solar photosphere using an image processing technique, J. Yasitha Kahapalaarachchi and K. P. S. Chandana Jayaratne, 34th Proc. of the Institute of Physics, Sri Lanka, pp 45-50, March 2018.
86. Fermi-Lat GeV Flux Observation of the BL Lacertae Object, K.L.I. Gunawardhana, K.P.S.C. Jayaratne, A.U. Abeysekara, 73rd Proc. Sri Lanka Assoc. Advmt. Sci., E1-511, Dec. 2017.
87. The effect of galaxy peculiar motion on the calculation of time delay between gravitationally lensed images, Gihan Weerasekara, T. Wickramasinghe and K. P. S. C. Jayaratne, Proc. Annual Res. Symposium, University of Colombo, Nov. 17, 2017.
88. Swift XRT X-ray flux variability of the BL Lacertae object from 2005 to 2017, K. L. I. Gunawardhana, K. P. S. C. Jayaratne, A.U. Abeysekara, Proc. Annual Res. Symposium, University of Colombo, Nov.17, 2017.
89. Light curve analysis of CC Andromeda, J. Adassuriya, K. P. S. C. Jayaratne, S. Ganesh, Proc. Annual Res. Symposium, University of Colombo, Nov. 17, 2017.
90. An analysis of the γ -ray and X-ray lightcurves from the Blazar 1ES 1959+650, M. V. Y. Herath and K. P. S. C. Jayaratne, 33rd Proc. of the Institute of Physics, Sri Lanka, pp 24-30, March 2017.
91. A study of the relationship between the sunspot number and some aspects of weather patterns in Sri Lanka using artificial neural networks, D. Achala Wickramasuriya and K P S Chandana Jayaratne, 72nd Proc. Sri Lanka Assoc. Advmt. Sci., E1-503, Dec. 2016.
92. GeV Gamma-ray flux variability of the BL Lacertae object, K.L.I. Gunawardhana, K.P.S.C. Jayaratne, A.U. Abeysekara, M. Herath, Proc. Annual Res. Symposium, University of Colombo, p 266, Oct. 11-22, 2016.
93. The highly variable activity of the Blazar 1ES 1959+650, and its implications towards understanding the physics of AGN's, M.V.Y. Herath, Udara Abeysekara, K.P.S.C.Jayaratne, Proc. Annual Res. Symposium, University of Colombo, p 268, Oct. 11-22, 2016.
94. Effect of meteoritic dust on the variation of global rainfall, Upali Jayasinghe and K P S C Jayaratne, 32nd Proc. of the Institute of Physics, Sri Lanka, pp 47-53, March 2016.
95. An automated system to detect feature variations of planet Jupiter, M C Shashikala and K P S Chandana Jayaratne, 71st Proc. Sri Lanka Assoc. Advmt. Sci., E1-507, Dec. 2015.
96. A case study on lightning protection of houses in the proximity of a 70 m tall communication tower M. U. Mendis and K. P. S. C. Jayaratne, Proc. Annual Res. Symposium, University of Colombo, p 135, Oct 29, 2015.
97. Study of Electromagnetic Pollution in Sri Lanka, S A T U W K Suraweera and K P S C Jayaratne, 31st Proc. Institute of Physics, Sri Lanka, pp 43-51, March 2015.
98. Accurate earth resistance measurement of communication towers, M U Mendis and K P S Chandana Jayaratne, 70th Proc. Sri Lanka Assoc. Advmt. Sci., E1-829, Dec. 2014.
99. Effects on tropospheric NOx level due to lightning, J A Priyanka and K P S Chandana Jayaratne*, 70th Proc. Sri Lanka Assoc. Advmt. Sci., E1-828, Dec. 2014.
100. A method to estimate the cooling time of ultra-relativistic electrons in Pulsar Wind Nebulae, K L I Gunawardhana, A U Abeysekara, K P S C Jayaratne*, and J Adassuriya, 70th Proc. Sri Lanka Assoc. Advmt. Sci., E1-827, Dec. 2014.

101. A preliminary study on the distribution of earth resistance around communication towers in lightning prone areas, M Udara Mendis and K P S Chandana Jayaratne, Proc. Ann. Res. Symposium, University of Colombo, p241, Nov 20-21, 2014.
102. Observation of solar radio bursts using E-Callisto system, J, Adassuriya, S. Gunasekera, K P S C Jayaratne and C. Monstein, 30th Proc. Institute of Physics, Sri Lanka, pp 43-51, March 2014.
103. Developing a statistical model to predict the rainfall at the onset of Maha season in the eastern part of the dry zone in Sri Lanka, A.M.A.H.D. Alagiyawanna, K.H.M.S. Premalal1 and K.P.S.C. Jayaratne, *Symposium on Climate Change, Colombo, Sri Lanka 2013*.
104. Determination of spectral parameters of few selected bright stars using spectrum synthesis method, L A S Vitharana , R A S Saraj Gunasekara and K P S Chandana Jayaratne, 69th Proc. Sri Lanka Assoc. Advmt. Sci., E1-532, Dec. 2013.
105. Effect of meteoritic dust on the variation of global rainfall, Upali Jayasinghe, K.P.S. Chandana Jayaratne, Proc. Annual Res. Symposium, University of Colombo, p 160, Oct 3-4, 2013.
106. Possibility of using satellite microwave imagery as an alternative technique to obtain rainfall data in Sri Lanka, K M Silva1 , I M S P Jayawardena2 and K P S C Jayaratne, Proc. Ann. Res. Symposium, University of Colombo, p 161, Oct 3-4, 2013.
107. Public complaints on lightning-related hazards to the neighborhood of communication towers in Sri Lanka , M Udara Mendis and K P S Chandana Jayaratne, Proc. Ann. Res. Symposium, University of Colombo, p 162, Oct 3-4, 2013.
108. Lightning risk management for sustainable development, Theme Seminar of Sri Lanka Assoc. Advent. (on Science for Sustainable Development and prosperity), 67th Annual Session, Colombo, Dec.10, 2012.
109. Study of harmful UV radiation emissions from compact fluorescent lamps (CFL) retailing in Sri Lanka, P A I L Weerasena and K P S C Jayaratne, 67th Proc. Sri Lanka Assoc. Advmt. Sci., C-304, Dec. 2012.
110. Co-author of the UNDP funded booklet on "Akunu Anathuru Awama Karamu(Lets minimize the lightning casualties)" published by the Ministry of Disaster Preparedness.(2011.09.15).
111. Development of Astronomy Research in Sri Lanka, K P S C Jayaratne, Presidential Address of the Institute of Physics Sri Lanka, 31st AGM.(26 March 2011.)
112. Solar Radius Determination Using Baily Beads Observations of Annular Solar Eclipse on 15 January 2010 in Sri Lanka, S. Gunasekera, J. Adassuriya, I. Madagangoda L.H.J.D.K. Fernando and K. P. S. C. Jayaratne, 27th Proc. of the Institute of Physics, Sri Lanka, March 2011, pp 107-113.
113. Buddhist pirith chants for mental and physical well being- A scientific approach, Proce. of the 7th Int. Buddhist Conference on the United Nations Day of Vesak Celebrations, Mahachulalongkornrajavidyalaya University, Thailand,545-553, May 2010.
114. Spectroscopic observations of novae V1065 CEN and V1280 SCO using 45 cm Cassegrain telescope at Arthur C Clarke Institute, S. Gunasekera, J. Adassuriya, I. Madagangoda, K. Werellapatha, K.P.S.C Jayaratne, 26th Proc. of the Institute of Physics, Sri Lanka, March 2010.
115. Depth Dependence of the Solar Source Function using Visible Solar Spectra, P.A. Mahesha Jeewanthi, K.P.S.C. Jayaratne, S. Gunasekera and J. Adassuriya, 26th Proc. of the Institute of Physics, Sri Lanka, March 2010.
116. On the study of post outburst of novae, K. Werellapatha, K P S C Jayaratne , S Gunasekera, J Adassuriya and I Medagangoda, International Intradisciplinary Conference on the frontiers of astronomy, Mangalore University, India. 28-30 Dec 2009.
117. Use of digital image processing techniques to analyze the solar disk and its proximity, N.V.C.D. Sarathchandra, K P S C Jayaratne , S Gunasekera, J Adassuriya and Imedagangoda, International Intradisciplinary Conference on the frontiers of astronomy, Mangalore University, India. 28-30 Dec 2009.
118. Effect of solar activity on weather changes and occurrence of extreme event cyclones, Joe C. Fernando and K.P.S. Chandana Jayaratne, SLAAS, 63rd Proc. Sri Lanka Assoc. Advmt. Sci., E1, 508, Dec. 2007.

119. Radial velocity study of close binary star-S Ant using 45 cm Cassegrain telescope at Artur C Clarke Institute, J Adassuriya, S Gunasekera, I Medagangoda, J Fernando and K P S C Jayaratne, 63rd Proc. Sri Lanka Assoc. Advmt. Sci., E1, 508, Dec. 2007.
120. Estimation of the astronomical Unit using the contact timings at the Transit of Venus Saraj Gunasekara¹, Indika Medagangoda¹, Jayathu Fernando¹, Hasitha Wijethilaka¹, and Chandana Jayarathne^{2*}, 61st Proc. Sri Lanka Assoc. Advmt. Sci., E1, Dec. 2005.
121. Use of satellites images as a tool to estimate tsunami destruction and to identify mitigatory measures, K P S C Jayaratne * and Hasitha Wijethilake², 61st Proc. Sri Lanka Assoc. Advmt. Sci., E1, Dec. 2005.
122. Application of Scientific Methodology in Spiritual Development, Dr. Chandana Jayaratne SISHV Dialogue 2 seminar abstracts, Society for the Integration of Science and Human Values, Department of Pali and Buddhist Studies, University of Peradeniya, Sri Lanka, 24.09.2005.
123. Generation of Hertzsprung-Russel (H-R) diagram using Pleiades Cluster stars to assess the suitability of ACCIMT telescope for photometric studies N L Dediya, G M L P Aponsu, J A P Bodhika, R A S Saraj Gunasekara and K P S Chandana Jayarathne, 60th Proc. Sri Lanka Assoc. Advmt. Sci., E1, Dec.2004.
124. Power plant emissions in Colombo as a tool for urban planning, K G T Dharshana , K P S C Jayaratne *, R P Samarakkody Proc. 1st National Symposium on Air Resource Management in Sri Lanka, 2004
125. Ozone column density variation over Sri Lanka, J A P Bodhika¹ and K P S C Jayaratne^{2*}, 59th Proc. Sri Lanka Assoc. Advmt. Sci., E1, 524, Dec.2003.
126. Spectrometric study of stars using ACCIMT telescope, J Adassuriya^{1*}, K P S C Jayaratne, S Gunasekera , 59th Proc. Sri Lanka Assoc. Advmt. Sci., E1, Dec.2003.
127. A low cost portable multipurpose satellite tracking system for Sri Lanka, R S T Kodikara and K P S C Jayaratne ,59th Proc. Sri Lanka Assoc. Advmt. Sci., C, 312, Dec.2003.
128. The Minimum Rainfall Requirement to Obtain Potential Yield of Tea Grown in Sri Lanka, 59th Proc. Sri Lanka Assoc. Advmt. Sci., D, Dec.2003.
129. Contribution from major power plants to air pollution in two major city centres in Colombo, K G T Dharshana, K P S C Jayaratne, R P Samarakkody and C J Annakkage, 59th Proc. Sri Lanka Assoc. Advmt. Sci., E1, 516, Dec.2003.
130. Influence of rainfall on the effectiveness of an earth electrode in a lightning protection system, S B M S Senevirathne and K P S C Jayaratne , 59th Proc. Sri Lanka Assoc. Advmt. Sci., E1, 515, Dec.2003.
131. Atmospheric electricity and lightning research in Sri Lanka, K. P. S. C. Jayaratne, 58th Proc. Sri Lanka Assoc. Advmt. Sci. Part ii., Presidential address of Section E1, 75-82, Dec.2002.
132. Spectrometric study of galaxies and nebulas, I L P Indika, K. P. S. C. Jayaratne and N I Medagangoda, 58th Proc. Sri Lanka Assoc. Advmt. Sci., E1.515, 219, Dec.2002.
133. Spectrometric study of stars using ACCIMT telescope, J Adassuriya, K. P. S. C. Jayaratne and S Gunasekera, 58th Proc. Sri Lanka Assoc. Advmt. Sci., E1.514, 218, Dec.2002.
134. Impact of variation of soil properties on the bush stand and productivity of tea lands in Sri Lanka, M K S L D Amarathunga, M A Wijeratne and K. P. S. C. Jayaratne, 55th Proc. Sri Lanka Assoc. Advmt. Sci., B.95, 96, Nov.2001.
135. The study on variation of the productivity of tea lands in the different agro-ecological regions in Sri Lanka, M K S L D Amarathunga, M A Wijeratne and K. P. S. C. Jayaratne, 56th Proc. Sri Lanka Assoc. Advmt. Sci., B.205, 49, Nov.2000.
136. A low cost multi-channel data logger for fair weather atmospheric electricity measurements, R Lelwala and K. P. S. C. Jayaratne, 55th Proc. Sri Lanka Assoc. Advmt. Sci., E1.21, 197, Dec.1999.
137. On the accuracy of locating ground flashes using two or more direction finding stations, D U J Sonnadara, I M K Fernando, S Namasivayam, K. P. S. C. Jayaratne, K R A Bandara, R Lelwala, A B Weerasekera, C Gomes and T R Ariyaratne, 55th Proc. Sri Lanka Assoc. Advmt. Sci., E1.08, 187, Dec.1999.

138. Some features of lightning ground flash activities observed in tropical thunderstorms, A B Weerasekera, I M K Fernando, D U J Sonnadara, R Lelwala, K. P. S. C. Jayaratne, S Namasivayam, K R A Bandara, C Gomes and T R Ariyaratne, 55th Proc. Sri Lanka Assoc. Advmt. Sci., E1.07, 186, Dec. 1999.
139. Effects of ambient temperature and evaporation on yield of tea in Sri Lanka, M K S L D Amarathunga, K. P. S. C. Jayaratne and M A Wijeratne, 55th Proc. Sri Lanka Assoc. Advmt. Sci., B.81, 99-100, Dec. 1999.
140. Variation of soil degradation in tea lands and its impact on bush debilitation, M K S L D Amarathunga, M A Wijeratne and K. P. S. C. Jayaratne, 55th Proc. Sri Lanka Assoc. Advmt. Sci., B.82, 100-101, Dec. 1999.
141. The effect of edaphic factors on yield of tea in Sri Lanka, M K S L D Amarathunga, M A Wijeratne and K. P. S. C. Jayaratne, 55th Proc. Sri Lanka Assoc. Advmt. Sci., B.29, 54, Dec. 1999.
142. The role of site selection on lightning ground flashes in an automated lightning detection network, D U J Sonnadara, I M K Fernando, S Namasivayam, T R Ariyaratne, K P S C Jayaratne and K R A Bandara, Proc. Inst. Phys., Sri Lanka; 15(B), 4, March 1999.
143. Some features of thunderstorm activity in Sri Lanka, K. P. S. C. Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., E1.50, 264-265, Dec. 1998.
144. Examination related anxieties among science undergraduate students in University of Colombo, K. P. S. C. Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., A-42, 33, Dec. 1998.
145. Preliminary results of implementing an automated system in Sri Lanka to locate lightning ground flashes, I M K Fernando, D U J Sonnadara, K P S C Jayaratne, S Namasivayam, T R Ariyaratne, Proc. Sri Lanka Assoc. Advmt. Sci., E1.24, 247-248, Dec. 1998.
146. The minimum rainfall requirement to obtain a potential yield of tea in Sri Lanka., M K S L D Amarathunga, K P S C Jayaratne, M A Wijeratne, Proc. Sri Lanka Assoc. Advmt. Sci., B-128, 125-126, Dec. 1998.
147. Effect of precipitation deficit on tea production in Sri Lanka., M K S L D Amarathunga, M A Wijeratne, K P S C Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., B-129, 126-127, Dec. 1998.
148. The polarity of thunderclouds observed in Sri Lanka, K. P. S. C. Jayaratne and A. G. Dayananda, Proc. Sri Lanka Assoc. Advmt. Sci., E1-36, 323 Dec. 1997.
149. Multiplicity of negative return strokes of lightning flashes observed in Colombo, G. A. C. Gomes and K. P. S. C. Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., E1-37, 324, Dec. 1997.
150. *EXAMINATION RELATED ANXIETIES OF UNIVERSITY STUDENTS WITH SPECIAL ATTENTION TO SCIENCE UNDERGRADUATES*, Postgraduate Diploma in Counselling Thesis of K. P. S. C. Jayaratne, November 1997, University of Colombo, Sri Lanka.
151. Experience of University Student Counselling Activities & Problems of University Students, K. P. S. C. Jayaratne, Introductory workshop on the principles and practices of counselling, University of Peradeniya, Peradeniya, 28-29 Aug. 1997.
152. Occurrence percentage and characteristics of different lightning flashes by means of radiation field measurements, W. J. M. Samaranayake and K. P. S. C. Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., E1-09, 164-165, Kelaniya, Nov. 1996.
153. Charge and size distribution of raindrops, W. J. M. Samaranayake and K. P. S. C. Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., E1-10, 165-166, Kelaniya, Nov. 1996.
154. A low-cost new type of electronic seismometer, W W P S Medis and K P S C Jayaratne, Proc. Inst. Phys., Sri Lanka; 12(B), 2, March 1996.
155. A novel technique for the production of tiny droplets in simulation studies of cloud droplet collision and coalescence process, Y A A Kumara Yapa and K P S C Jayaratne, Proc. Inst. Phys., Sri Lanka; 12(B), 4, March 1996.
156. A review on microsecond scale electric field pulses emitted by lightning discharge G. A. C. Gomes and K. P. S. C. Jayaratne, Proc. Inst. Phys., Sri Lanka; 12(B), 7, March 1996.

157. Number of thunder Days per year and other lightning occurrence characteristics in Colombo thunderstorms, K. P. S. C. Jayaratne and G. A. C. Gomes, Proc. Sri Lanka Assoc. Advmt. Sci., Sci., E1-05, 340-341, Colombo, Nov. 1995.
158. The determination of lightning charge centre location from two station electrostatic field change measurements, W. J. M. Samaranayake and K. P. S. C. Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., E1-04, 338-340, Colombo, Nov. 1995.
159. Long wire antenna set-up for the measurement of local, global and extra-terrestrial effects of air-earth conduction current, K. P. S. C. Jayaratne and R. Lelwala, Proc. Sri Lanka Assoc. Advmt. Sci., E1-25, 212, Colombo, Dec. 1994.
160. Construction consideration of a magnetic direction finder system for the location of lightning in Sri Lanka, K. P. S. C. Jayaratne, I. M. K. Fernando and V. Cooray, Proc. Sri Lanka Assoc. Advmt. Sci., E1-24, 211, Colombo, Dec. 1994.
161. Characteristics of lightning flashes observed in Sri Lanka in the tropics, V. Cooray and K. P. S. C. Jayaratne, J. Geophys. Res., 99, 21051-21056, 1994.
162. On the theory of electrification of the atmosphere due to ground water evaporation, K. P. S. C. Jayaratne, J. Inst. Phys., Sri Lanka; 10, 6, 1994.
163. Electronic speech recognition system, N. A. D. S. M. Dharmatilleke, A. S. Nazareth and K. P. S. C. Jayaratne, J. Inst. Phys., Sri Lanka; 10, 1, Colombo, March 1994.
164. The lightning HF radiation at 3 MHz during leader and return stroke processes, K. P. S. C. Jayaratne and V. Cooray, J. Atmos. Terr. Phys., 56(4), 493-501, 1994.
165. A novel technique to measure the body charge of honeybees, K. P. S. C. Jayaratne and H. M. U. P. H. Denuwara, Proc. Sri Lanka Assoc. Advmt. Sci., E1-16, 196, Peradeniya, Dec. 1993.
166. Behaviour of Sri Lankan honeybees in simulated fair-weather and thunderstorm electric field conditions, K. P. S. C. Jayaratne and H. M. U. P. H. Denuwara, Proc. Sri Lanka Assoc. Advmt. Sci., E1-15, 195, Peradeniya, Dec. 1993.
167. Ground-station measurement of size and charge of raindrops from tropical rain clouds, K. P. S. C. Jayaratne & J. P. Gamalath, J. Inst. Phys., Sri Lanka, 9, 6-12, 1993.
168. Preliminary studies on the measurement of air-earth conduction current density in Sri Lanka, K. P. S. C. Jayaratne & R. Lelwala, J. Inst. Phys., Sri Lanka, 9, 1-5, 1993.
169. *ON FAIR-WEATHER AND THUNDERSTORM ELECTRICITY - Basis for Construction of an Atmospheric Electrical Station in Sri Lanka*, PhD Thesis of K.P.S.C.Jayaratne, February 1992, University of Colombo, Sri Lanka.
170. HF radiation at 3 MHz from negative lightning discharges to the ground, K. P. S. C. Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., E1-12, 134, Colombo, Dec. 1991.
171. On the nature of tropical lightning observed in Sri Lanka - II, K. P. S. C. Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., E1-11, 133, Colombo, Dec. 1991.
172. On the nature of tropical lightning observed in Sri Lanka - I, K. P. S. C. Jayaratne, Proc. Sri Lanka Assoc. Advmt. Sci., E1-10, 132, Colombo, Dec. 1991.
173. Correlation between temperature and space charge density fluctuation, K. P. S. C. Jayaratne, D. L. N. Jayathilaka, E. Knudsen and R. Kulasekara, Proc. Sri Lanka Assoc. Advmt. Sci., E1-01, 94, Colombo, Dec. 1989.
174. Design and construction considerations of an EMI hardened lightning instrumentation, V. Scuka, S. Namasivayam, K. P. S. C. Jayaratne and S. Lundquist, Proc. 19th Int. Conf. Lightning Protection, Austria, 1.1 pp. 1-9, 25-29 April 1988.
175. Polar conductivity profiles of the lower atmosphere under fair-weather conditions, K. P. S. C. Jayaratne, H. G. S. Siriwardane, D. L. N. Jayathilaka, F. L. Karunaratne and S. V. K. Manchanayake, J. Inst. Phys., Sri Lanka; 4, 25-31, Colombo, 1988.
176. The effect of distorted atmospheric electric field lines on the measurement of small ion densities, K. P. S. C. Jayaratne, H. G. S. Siriwardane, D. L. N. Jayathilaka, F. L. Karunaratne and S. V. K. Manchanayake, J. Inst. Phys., Sri Lanka; 4, 18-24, Colombo, 1988.

177. Values of space charge density under fair weather conditions, K. P. S. C. Jayaratne and T. M. R. Tennakoon, Proc. Sri Lanka Assoc. Advmt. Sci., E55,183, Colombo, Dec. 1986.

A.7.VI PATENTS

1. International Patent(PCT) received on 2021.04.15: WO/2021/069993 - “Automatic Shading Mechanism For A Camera” H.D.S. Amaradasa, A.G.P. D Alahakoon,S.S.Abeywickrama, G.D.K.Mahanama, K.P.S.C Jayaratne, N.C Wickramasinghe University of Ruhana & National Research Council.
2. Pending: Day and night time imaging capable automated all-sky camera, LK20432,2019 Mar 29, National Research Council (Based on Research Grant 16-012) :”
3. Divisional Patent Applied: Intelligent shading apparatus for cameras with wide-field of view. 2019.05.28 12,H.D.S. Amaradasa, A.G.P. D Alahakoon ,S.S.Abeywickrama, E.M.Ranatunga,G.D.K.Mahanama, KPSC Jayaratne, NC Wickramasinghe

A.7.VII RESEARCH COLLABORATIONS

(a) International

- I. Dr. Sashikaran Ganesh, Astronomy and Astrophysics Division, Physical Research Laboratory, Ahmedabad, INDIA.
- II. Dr. Akimasa Yoshikawa, Space and Earth Electromagnetism Laboratory, Department of Earth and Planetary Sciences, Graduate School of Sciences, Kyushu University, Hakozaki, JAPAN.
- III. Dr. A. U. Abeysekara (High Energy Astrophysics), Department of Physics & Astronomy, The University of Utah, USA.
- IV. Prof T. Wickramasinghe (Dark matter and Gravitational Lensing), Dept. of Physics, The College of New Jersey, USA.
- V. Prof. (Mrs). B. Veenadhari, Observatory and Data Analysis Division, Indian Institute of Geomagnetism, Mumbai, INDIA.
- VI. Dr Aniket Sule, Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research, Mumbai, INDIA.
- VII. Dr. Bhuwan Joshi, MountAbu Astronomical Observatory, Udaipur, INDIA.
- VIII. Dr. G. Pearce, Aston University, Birmingham UK

(b) Local

- I. Mr. Saraj Gunasekera, Head of the Division, Space Applications Division, Arthur C. Clarke Institute for Modern Technologies, Katubedda, Moratuwa, Sri Lanka.
- II. Prof. V P S Perera, The Head, Department of Physics, The Open University of Sri Lanka, Nawala, Nugegoda.
- III. Prof. G D K Mahanama, The Head, Department of Physics, University of Ruhuna, Matara.

A.7.VIII EDITORIAL BOARDS AND RESEARCH-RELATED ACTIVITIES

- Chief Editor, Journal of the Sri Lanka Association for the Advancement of Science. (2022-2024).
- Executive Editor, Journal of the Sri Lanka Association for the Advancement of Science (The Journal was founded in 2018 under my General Presidentship of SLAAS) (2018 to date).
- Chairman, Technical Sessions Editorial Committee of the Institute of Physics, Sri Lanka (2013-2022) and member (29.03.2010 - 26.03.2012).
- Member, Editorial Board of the Journal of Institute of Physics, Sri Lanka(2011 to date).
- Postgraduate Advisor of the Department of Physics, University of Colombo (2012 -2020)

- NASTEC Reviewer of Research Projects (2016).
- Member, Higher Degree Committee of the Faculty of Science, University of Colombo (2005 - to date).
- University of Colombo Annual Research Symposium- Physics Department editorial coordinator(2012-2020)
- Served as a reviewer of abstracts/papers from SLAAS and several other symposia and International/National conferences(University of Colombo Ann. Res. Sym., IRSPAS-University of Kelaniya, ICMA – University of Sri Jayewardenepura, RISTCON-University of Ruhuna)/Journals(IPSL, NSF)
- Group Leader *Atmosphere Physics/Lightning Research Group of the Colombo University (1992-1999)*

A.7. IX TEXTBOOKS AND MONOGRAPHS

- Tharaka Vidyawa (Astronomy in Sinhala) 1&2 in print.(Sri Lankan Astronomyolympiads Association), 2020.
- Astronomy –Unit 1 (Textbook) Published by The Open University of Sri Lanka, 2013, 115 pages.
- Astronomy–Unit 2 (Textbook) Published by The Open University of Sri Lanka, 2013, 120 pages.
- Popularizing Science and Technology-Some Asian Case Studies, AMIC/Commonwealth Secretariat 1999 (ISBN 9971-905-73-6), Chapter on Sri Lanka by K P S C Jayaratne
- Sri Lanka Standard for Lightning Protection Systems (SLS 1261:2004),UDC 699887.2, a 138 page document is out as a publication of SLSI. I was a key member of the working group.
- Co-author of the UNDP funded book on "Akunu Anathuru Awama Karamu (Lets minimize the lightning casualties " published by the Ministry of Disaster Preparedness.(2011.09.15).
- Monograph: Science and Society-1: Nivase Viduliya Ananthuru Walakaganimu (Prevention of Accident at Home due to Electricity) –K P S C Jayaratne, A publication of the Sri Lanka Association of the Advancement of Science,1993.
- Ratre Ahase Taraka Sithiyama (Map of the Night Sky in Sinhala), 2003.
- Monograph: The instruction sheet prepared on behalf of SLRC as a part of the National Programme to educate the public on viewing of Haley’s Comet appeared in 1986 ; Printed in all three languages- Sinhala, Tamil & English.

A.8 ANY OTHER RELATED INFORMATION

A.8.1 Some consultancy/services undertaken :

Consultancy Title	Type **	Institution/ project attached	Country	Year started	Duration
Setting up the National Astronomical Observatory, Sri Lanka (obtaining the JICA funded telescope)	Technology Adaptation	Ministry of Industries, Science and Technology, Government of Sri Lanka	Sri Lanka	1992	4 Years
Consultant to the ACCIMT- Astronomy and Space Applications Division	Technology Adaptation	Arthur C Clarke Institute for Modern Technologies	Sri Lanka	1997	16 Years
Preparation of Sri Lanka Standards for Lightning Protection Systems((SLS	Policy/Management Issues	Sri Lanka Standard Institute	Sri Lanka	1997	6 Years

1261:2004) - a member of the group.					
Member, Technical Evaluation Committee of Science and Technology Personal Development Project –ADB Loan No. 1535 SRI(SF)	Policy/Management Issues	Ministry of Science and Technology	Sri Lanka	1999	3 Years
Preparation of Regulations on Antenna Structure – Regulation No 1/2008 -as a member of this committee	Policy/Management Issues	Telecommunication Regulatory Commission (TRC) of Sri Lanka.	Sri Lanka	2008	3 years
Preparation of National Lightning Safety Centre act – as member of Cabinet approved Four Member interim board to set up the National Centre for Lightning Safety	Policy/Management Issues	Department of Meteorology	Sri Lanka	2012	2Years
National Science Centre – Theme1 Leader	State of art of reporting	National Science Foundation	Sri Lanka	2014	2 Years
Team Member - Preparation of National Policy on General Education of Sri Lanka	Policy/Management Issues	National Education Commission	Sri Lanka	2014	3 years
Chairman -Technical Expert Committee on Digital Full Dome 4D projector system	New process	Sri Lanka Planetarium	Sri Lanka	2015	1 Year
Implementation of a Rs 12.4 million worth Teachers training programme on Change education towards STEM education through inquiry-based learning for Sri Lankan schools (also the Chairman of the Activity Group and Science and technology Advisory Committee of SLAAS)	Policy/Management Issues	Ministry of Education and Ministry of Science, Technology and Research	Sri Lanka	2018	1 Year
Hosting and conducting the 23 rd International Astronomy Olympiad being the Chairman of the Local Organizing Committee, 6-14 October, Colombo, Sri Lanka (This is the first ever International Olympiad that hosted in Sri Lanka.	State of art of reporting	Council of the International Astronomy Olympiad	Russia	2018	10 Dyas (Work Plan 1 year)

A.8.2 Contributions made to the Arthur C Clarke Institute for Modern Technologies

Served as the Principal Research Scientist - Space Applications (on contract basis) from 27.10.2003 – 26.10.2004 for a period one year on sabbatical. Since then I was serving the ACCIMT as a Consultant up to date. Some of the major contributions made during this period are as follows:

1. Initiated the six-day Residential Workshop on Introduction to Practical Astronomy programme series at ACCIMT. From December 2003 up to dated 6 workshops have been conducted and had trained a large number of students. Space Science Society was formed at ACCIMT for the students.
2. Initiated the Certificate Course on Astronomy at ACCIMT in 2004.(Six months programme). A teachers' training programme is in pipeline.
3. Supported the Vidartha programme of the Ministry of Science and Technology by visiting some Vidartha centers as a resource person on conducting Lightning protection workshops.
4. Initiated the workshop series on Lightning protection at the ACCIMT for technical officers at the Vidartha Centers all over the country in view of the distribution of the knowledge on lightning protection at village level through Vidartha Centers. Already three programs had been conducted for more than 300 TOs by me as the resource person and had given a CD with PowerPoint presentation, a large poster and a booklet on lightning protection enabling the Vidartha officers to transfer that knowledge at the village level.
5. Assisted and guided the ACCIMT space application personnel on Astronomy research leading to several research publications.
6. Assisted and guided the GIS research officer to initiate research activities, particularly on assessing the Tsunami disaster using satellite pictures.
7. Made the public aware through mass media whenever there is an astronomical event of importance to the general public.
8. Supported the development of Astronomy through University-ACCIMT interaction by introducing more than 6 (several) undergraduate final year students on research projects to conduct astronomy-related research.
9. Supported several school activities by conducting astronomy night sky observation camps at the school level. As a mark of respect, the Astronomical Association of the Horana Taxila Central College has initiated an annual event called "Dr. Chandana Jayaratne Challenge Trophy- Inter School Astronomy Quiz Competition" from 2004.

I was involved in the ACCIMT astronomical telescope observatory science its inception, technical evaluation committee on the preparation of specification and up to its installation. I served as a consultant to the ACCIMT before the above period as well and has done a yeoman service to the ACCIMT to bring its Space Applications Division into present form.

A.8.3 Dissemination of Knowledge-Scientific & Literacy Communications

A.8.3.1 Orations/Keynote or Presidential address and overseas invited guest lectures

- Keynote Address -NIE Convocation on awarding National Diploma in Teaching-2022.10.22 at BMICH, on "Knowledge transferring at school level towards sustainability in the face of invading artificial intelligence, machine learning and automation technologies."
- Mailvaganaum Memorial Oration 2020 held in 2021 February – an annual oration organised by the Institute of Sri Lanka in memory of father of Physics and 1st Physics professor in Sri Lanka, held on 25.02.2021 at NPLT, University of Colombo and via Zoom platform.
- **Invited guest speaker (plenary session speech) of the 5th Ruhuna International Science and Technology Conference-RISTCON 2019** of Ruhuna University - Spoke on "Need of knowledge transferring at school level towards sustainability in the face of invading artificial intelligence, machine learning and automation technologies "
- **SLAAS Presidential Address of General President**, 2018, Space Science and Technology Applications for Sustainable Development at the BMICH Main Conference Hall, 2nd December 2018.
- Prof. E. M. Jayasinghe Memorial Oration 2017 (Inaugural Oration) - "Lightning Risk Assessment and how to prevent lightning-related hazards" organised by the Open University of Sri Lanka (OUSL), at OUSL Science Faculty Seminar Room, Nawala, 26th July 2017.
- **Korean Astronomical Society invited lecture** - Popularization of astronomy as a tool to attract bright young students into the science stream, **Fall Meeting of Korean Astronomical Society**, October 17 -19, 2012, Gwangju, South Korea.

- **Sugunadasa Athukorala Memorial Oration** 2016 – “Understanding the new problems faced by student in the 21st Century” at New Town Hall (organised by Nalanda Vidyalaya Old Boys Association jointly with Nalanda Retired Teachers Association 18th Nov. 2016).
- **SLAAS Section E1 Presidential Address**, 2002, Atmospheric electrify and Lightning Research in Sri Lanka.
- **Institute of Physics Sri Lanka - Presidential Address** "Development of Astronomy in Sri Lanka" 2011.03.26.
- **SLAAS Them Seminar address** on "Lightning Risk management for sustainable development" 2012.12.10.
- **Keynote address** at the International Ozone day Ceremony 16.09.1999.
- **NASTEC- National science week** lecture “Space Mining” at Planetarium organized by National Science and Technology Commission (NASTEC) of the Ministry to mark the National Science Week, 4th-8th November 2014.
- **Singapore-** Buddhist Research Society Invitation- series of guest lectures-05-11 April, 2007.
- **Saudi Arabia - Sri Lanka Embassy** invitation for a guest lecture series, 7-14 May, 2012.
- **Riyadh- Sri Lanka Embassy** in Riyadh invitation for a guest Lecture series to Sri Lankan expatriates in Riyadh, 15-21 May 2011.
- **UAE-Dubai-** Invited Guest Lecture on Psychology of Personality Development and Goal Setting for Nalanda College Alumni – UAE (NCA UAE) 2015.04.03.
- **Dubai-** Olcott schools UAE and Dubai - Invited Guest Lecture on How to Study Effectively and Pass Examinations, 2015.04.04.

A.8.3.2 Popular Science Lectures and Public Lectures/Astronomical Night Sky Observation Camps

I have delivered **over 500 lectures** since 1984 to date mainly by participating as the Chief Guest of School Science Days or Astronomy Days in various parts of the country and through programmes organized by various Government Ministries on scientific topics related to lightning safety, Sea Level Rise and Global Warming, Greenhouse Effect, Climate Change, El Niño and La Niña, Atmosphere Pollution, Laser Applications, Nano Technology, Depletion of the Ozone Layer, Space Science, Space Mining, Artificial Satellites and their Applications, History Development of Astronomy, Current Understanding of the Universe etc.

The number of Astronomical Night Sky Observation Camps conducted at the school/university/Educational District level is over 100.

A.8.3.3 Use of Print-media to bring science to the general public

Awareness programmes on lightning protection and other topics of public interest were made through paper articles. Celestial events of astronomical interests like appearing of comets, eclipses, meteor showers etc. were announced for the public in advanced and those events were used to popularize science among the public. The number of such press releases, news items, articles published by newspapers are over 200 and few are attached as an annexe. In the case of announcing astronomical events of important like eclipses, I was doing a yeomen service to the country by solely handling this for nearly two decades and even at periods like 1980s where no information was available through the internet.

A.8.3.4 Use of Electronic-media to bring science to the general public

Awareness programmes on lightning protection, lasers, Electricity, Astronomy and other topics of public interest were made through TV and Radio programmes. Celestial events of astronomical interests like appearing of comets, eclipses, meteor showers etc. were announced for the general public in advanced and those events were used to popularize science among the general public.

- a. More than 100 TV programmes in SLRC and ITN (Including a series 12+1 half-hour programmes on Astronomy (for Viswaye asiriya – Marks claimed separately) + a series of 25 ten-minute programme on astronomy with computer graphics (Asirimath ahasa), and several educational programmes such as Lasers, Sound, Microwave oven, Refrigerator, Lightning, Nonimi lowa science series, Electronic IC's etc.)
- b. Number of radio programmes done in SLBC: More than 200 including a 42-programme series on astronomy and conducting of school science quiz programmes (as the quizmaster), coordinator of the Vidya Lokaya weekly science programme (1/2 hr through which a discussion was made with an invited scientist from a Sri Lankan university/research institute to disseminate the new knowledge for a period of 2 years 1995/96).

A.8.3.5 Two national-level joint programmes on outreach and research activities during rare Annular Solar Eclipse of December 26, 2019

(the next annular solar eclipse visible to Sri Lanka is in 2031)

Astronomy melds into every society, influencing its culture and the intellectual atmosphere. It is an essential component of education, science, research and promotes technological advancement. Unfortunately, Sri Lanka ranks very low in the development of this discipline as judged from educational programs, research and outreach activities.

The annular solar eclipse of 26th December 2019 is a good opportunity to launch a founding program in astronomical education and research in Sri Lanka. The annular part of the solar eclipse is visible only to the Jaffna area (Northern part of Sri Lanka) while to the rest of the country, the eclipse will be visible as a partial solar eclipse. We are planning to conduct outreach activities and research level measurements during the time of the eclipse.

A broader impact of the program is to expose the society to the intellectual power of astronomy, using this rare opportunity. The program will also serve as an important step in generating astronomy research interest among academics, undergraduates, school teachers and students. Further, these activities enhance the partnerships and create trust among communities affected by more than three decades of the civil war. Astronomy awareness is expected to have an impact on society at large in abandoning superstitious thinking detrimental to almost all human activities.

The broader goals of these activities/programmes are:

- Invigorate Sri Lanka's North and South scientific dialogue and inculcate it as a means of promoting social harmony.
- Create an interest in science among young in Sri Lanka, especially physics and mathematics.
- Use astronomy as a "tool" to demonstrate the fallacy of superstitions and their inherent danger.
- Initiate astronomical research in Sri Lanka.

The following two national-level activities/programmes are conducted

1. Astronomy and Space Science Unit of the Department of Physics and the Astronomical Society, University of Colombo to provide technical and other supports for the joint national annular eclipse viewing programme planned to conduct in Jaffna together with University of Jaffna, National Institute of Fundamental Studies and Western Norway University of Applied Sciences. Main activities involved are : (a)Two main Solar Eclipse Observing Camps, one in Jaffna University and other in Colombo University. Plans are also made to conduct scientific measurement during the eclipse. The solar observing telescope due to donate by Colombo University Faculty of Science Alumni Association (CUFSAA) in USA will be used for this purpose. (b) Conduct early awareness programs by holding press conferences and conducting all-island competition/exam among school children on eclipses. Activity is co-sponsored and financially supported by the Ministry of Science, Technology and Research, Sri Lanka and HRNCET projects and the Jaffna University will handle the financial part (LKR 1.7 million).
2. Astronomy and Space Science Unit of the Department of Physics University of Colombo to conduct the national solar eclipse viewing programme at 256 Vidatha Centres all over the country directly under the patronage of the Ministry of Science, Technology and Research by a) training Vidatha centre officers in Colombo on 22.11.2019 by educating them on safe viewing of solar eclipses and way to register school children for the local observation camps planned on Dec. 26, 2019 and way of awarding certificates for the winners. Each Vidatha centre will be provided with a take home pack of 10 eclipse glasses (3000 to receive free from International Astronomy Union), Astronomy and Space Science Unit (ASSU) produced video(DVD) on solar eclipses edited by FOS media, a poster prepared by ASSU on

solar eclipses and a toolkit to produce home-made eclipse shades. The total cost of this project is LKR 3.9 mil. and the Ministry of Science, Technology & Research will handle the financial part.

A.8.4 Contributions made to Buddhism and related work

My efforts to develop an ethical nation in Sri Lanka using the Buddhism – the religion followed by the majority of population in Sri Lanka was exceptional. One of those personal work was constructing a Chathya in Indolamulla Purana Viharaya. With the support of his Methsaviya meditation group, I have initiated a project to rehabilitate the SALAPATHALA MALUWA of the ancient Mirisawetiya Chaitha in Anuradhapura by laying huge granite stones while preserving the more than 2000 years old historical identity, toilet system in Nagadeepa temple, Jaffna, the tallest buddha statue in Sri Lanka with no back support in Mahiyanganaya Rajamaha Viharaya worth over Rs 95 million etc etc.

Conducted more than 50 full Moon Poya Day programmes(5-6 hour lectures) at temples on invitations up to date. These programmes explain the Science behind Buddhism.

Conducted over 200 TV programmes and panel discussions on Buddhism (eg Full moon day 1 1/2 hour live TV programme for youths "Youn Sithata Daham Sisila" with Ven. Bandarawela Amithanada has completed 5 years to 2006 December in Sinhala medium on National Television(SLRC), "Sadaham Sisila" 1 ½ hr programme on full moon poya days in Derana TV Channel (from June 2007 up to date), Buddhist TV programme in TV Lanka on full moon poya days from May 2007 up to date (with Kalasoori Arisen Ahubudu), and guided insight meditation TV programme on full moon days night at Channel Eye in English medium, Amadahara Buddhist TV series telecast live on every other Wednesday from 9.30 p.m. – 10.00 p.m. in TNL channel(together with Ven. Dodampahala Rahula Thero), more than 200 radio programmes on Buddhism (e.g. the Programme series Maranin Mathu Pewathma(life after death) with Ven Bellana Ganawimala Mahanayake Thera and Ven. Meegoda Panghaloka Thera and Dr. K G. Dharmawardane; Salapathal Maluwa since June 2007 with Ven Nauane Ariadamma Thero at SLBC, newspaper articles on Buddhism and Science.

- (i) A resource person to the International Workshop and Seminar on "Scientific Look Into Buddhism" Buddhist held at Buddhist Research Society, Singapore, 07-08 April 2007 and presented a paper on "The origin and nature of the universe and formation of life on earth: as described in Buddhist cosmology and ascertained by modern astronomy".
- (ii) A resource person to the International Buddhist Conference on How to Practice and Protect Buddhism in this Millennium held in BMICH, Colombo, 14th January 2007 and presented a paper on "Science behind the benefits of listening to Buddhist Paritta (Pirit) Chants". (organized by International Buddhist Organization-Singapore).
- (iii) A resource person to the International Buddhist Conference held in Kandy- Sri Lanka, 11-12 August 2006 and presented a paper on "Buddhism and Science".
- (iv) Member of the Sri Lankan delegation to the Tipitaka Studies and Pilgrimage held in Thailand, Rose garden Hotel, 12-15 January 2006 organized by the Dhamma Society-Thailand.
- (v) Member of the Sri Lankan delegation to the International Conference on Buddhism, BMICH, Sri Lanka, 9-14 Sep. 1999.
- (vi) Vice President, Buddhist Research Foundation, Kanduboda, Delgoda, Sri Lanka.
- (vii) Patron, Matitree Padanama (A Buddhist foundation with its aims as spreading loving-kindness to the world), Sri Lanka
- (viii) A patron of the All Ceylon Buddhist Congress (ACBC) , Baudhaloka Mawatha, Colombo-07, Sri Lanka.
- (ix) Treasurer, Indolamulla Purana Viharaya Chaithya Development society.
- (x) Member, Meditation Masters' Association (Bavana Kammatanaacharya Varunge Sabgamaya), C/o Kaduboda Samatha Vipassana International Meditation Centre, Kanduboda, Delgoda.
- (xi) Member of the three-member committee appointed by the Minister of Tourism Hon. Milinda Moragoda on the recommendation of the Buddhist Priests' Advisory Committee to classify all meditation centers in Sri Lanka in view of teaching Buddhist meditation for foreign nationals, and

- to find out their shortcomings of such meditation centers to give financial assistance. (2007/2008).
- (xii) Received several awards and Titles from Buddhist organizations in recognition of my service to Buddhism (see Awards and Title in above section -10).
 - (xiii) President, National Avhinsa Ekabadda Sammaelanaya established under the Ministry of Cultural Affairs, Isurpaya, Battaramaulla, Sri Lanka. (2008 Nov. -2010).
 - (xiv) **President and founder of the Methsaviya – Manasa Educational Development Forum (A national Buddhist organization based in Sri Lankaramaya, Lesli Ranagala Mawatha, Borella, Colombo-08, through which thousands of young people have learnt meditation.**

As a meditation teacher – I have trained more than 7000 people in a deeper way on Samatha and Vidarsana (insight) meditation on Sunday meditation classes conducted at Wellawatta Sri Vijayaramaya, Dahmma Gaveshi Bauddha Asramaya in Bullers Road Colombo-07 and, Sri Lankaramaya, Lesli Ranagala Mawatha, Colombo-08 since 2003 (as the founder and President of the Methsaviya forum).

Religious and community services done by me under the Methsaviya

(see www.methsaviya.lk for full information)

Meth Saviya association is a registered religious organization in Sri Lanka started in 2003 with the aim of building up the mentalities of the people by teaching Samata and Vidassana practices of Buddhist meditation. Its current membership exceeds over 7000, all trained through our four months meditation programme. Methsaviya Meditation Centre is currently located at the Sri Lankaramaya, 55, Lesli Ranagala Mawatha, Colombo-08, Sri Lanka. Apart from teaching Buddhist meditation and conducting scientific research on the benefits of Buddhist meditation, up to this date we have silently performed many welfare activities throughout the Island. They range from water facilities, toilet facilities in various sacred places and to mention the work a few special places as repairing the stone paved court yard of Mirisaveti Chetiya in Anuradhapura, constructing the toilet complexes in Nagadipa Vihara in Jaffna and Kilinochchiya Lumbini Vihara after the damages done by the terrorists. Our services included the supply of drinking water to Mahiyangana Vihara and supplying medicines to many rural hospitals. Donation of hospital equipment to many hospitals, providing dry rations to people under disasters like floods, conducting eye camps for the poor and donation of free spectacles, free medical camps, conducting a pre-school in Kaluthara giving free education to kids.

The Meth Saviya in 2012 started to construct the tallest Buddha statue with no back support in Sri Lanka over 100 feet in height in commemoration of the 2600th anniversary of the Enlightenment of the Lord Buddha. The cost of the project is over LKR 100 million. The organization chose the premises of Mahiyangana sacred temple premises for this purpose as it is considered as the first place that Lord Buddha trod, and as it was the site where a stupa was built enshrining the Lord's relics during His life time.

A.8.5 As a Social Worker and a Rotarian

Prof. Chandana Jayaratne has also not forgotten his civic responsibilities, and besides his scientific, astronomical, religious, psychological counseling and environmental work he is continuously involved in the community service using his personnel money as well as through the public support and through the Rotary Club of Colombo Central.

He was inducted as a Rotarian in 1996 by Governor Mangala and since then he has held several posts like Director Community Service and Vice President for several years in the Rotary Club of Colombo Central. President of the Rotary Club of Colombo Central in the Rotary Millennium year 2004/2005 as well as the District Chairman-Functional Literacy in 2006/2007 and District Chairman of the Environment Committee in 2007/2008. Resource person to Rotary District 3220 Community Service Seminar held on 2nd September 2007-“Global Warming-What Rotary can do”.

Assistant District Governor of the Rotary District 3220-Sri Lanka (2008/2009). He became a Paul Harris Fellow (PHF) in 2004 and bestowed as a double Paul Harris Fellow (PHF) in 2010. He is a person whose service was recognized by the Rotary International and in the year 2002 he received the Four Avenues of Service Award from the RI President and Outstanding Commitment to the Promotion and Support of Voluntary Blood Donation Programmes recognition from the RI Global Network for Blood Donation in 2006, and Special recognition award from Rotary Club of Biyagama in appreciation of Humanitarian

Services Rendered to the Community in 2005. Special recognition for his commitment to Rotary's membership growth (A blue pin) on 2015.10.08.

In the Rotary Club of Colombo Central which meets at Colombo Hilton Hotel on Wednesdays he served as the Chairman four avenues of Service (2010/11), Chairman cum Director Rotary Foundation 2011/12), Director/Chairman Service Projects- 2012/13, Souvenir Editor - Installation of 33rd President (2012 Aug.), Director/Chairman Service Projects-2013/14/15, Chairman, Membership (2016/17-2018/19), Chairman, Club Administration, (2019/20); Chairman, Membership (2020/2021). Introduced more than 15 members to the Rotary Colombo Central with 6 members in 2017/18 as the Chairman/Membership,

Through Rotary he was involved under his project leadership the massive projects like

Construction of a Pediatric Hospital in Hambegamuwa to eradicate child mortality problem of the poorest of the poor in Thanamalwila area (2002), and a Sewing Training Centre in Hambegamuwa-Thanamalwila as an attempt to divert Ganja growing poor people by providing an alternative mean of living (1999); Rehabilitation of a huge irrigation tank – Malewana Weva in Welawaya,(2003); Developing a preschool in Malewanayaya in the Monaragala District (2002); Building-up a talking computer library for the blind undergraduate students of the University of Colombo and numerous Tsunami Relief work in the cost line areas of Sri Lanka from Jaffna-Tricomalee-Batticaloa-Hambantota-Matara-Galle-Hikaduwa and Negambo (2004/2005). He was also responsible for establishing the two Rotary Village Corps (RVS) come under our rotary club the Rotary Village Corp in Hambegamuwa and the Rotary Village Corp in Malewanayaya (2000), Ranminithenna Pre School and RCC in 2001. A computer center with 10 computers and a building in Dompe as a vocational service project. His Rotary projects have won district best awards in the past. Project leader-construction of Rs 1.5 million Kalutthara Rotary preschool. Received a district grant worth Rs 2.3 lakhs to develop Indolamulla primary school library facilities. Distribution of spectacles and RS 3.3 million worth hearing aids through an eye camp received the district citation for Health care in 2017/18, Establishment of a school library using a District Grant at Indolmulla Kanishta Vidyalaya, Dompe 2018, Distribution of 123 spectacles after an eye testing camp for 1000 and free cataract operations for 13 people with project value about 1.0 million, In 2019/20 and 2020/21 organized the economic development project in support of Rotractors at the Horowpathana village in North Central Province by donating Rs. 1.8 million worth of milking cows, irrigation water pumps for cultivation.

A. 8.6 OTHER INFORMATION

Language proficiencies:

Fluent in (1)**Sinhala**, (2)**English** and moderate fluency in (3)**Swedish**

Other languages learned:

(4)**Tamil** (followed the Open University course-1994, and BMICH courses)

(5)**German** (Gothe Institute -Colombo); (6)**Russian** (Followed at Nalanda College).

A.8.7 Countries visited (on research activities, link programmes, conferences & seminars, workshops and on invitation to deliver guest lectures etc.):

Bangladesh(2015), Brazil(2012), China(2010, 2017), Denmark(1986,1988), Germany(1988), Greece(2013), India(1996, 2003, 2009, 2011, 2013, 2014, 2016), Indonesia(2008, 2015), Iran(2009), Italy(1986, 1987), Japan (1996), Lithuania(2013), Myanmar (2020), Netherlands (1988, 1992), Norway(1987), Poland(2011), Romania(2014, 2019), Russia (1989), Saudi Arabia(2011, 2012), Singapore(2007), South Korea(2012), Sweden (1985, 1986/87, 1988, 1989, 1990/91, 1992, 1994, 1995, 1996), Switzerland(1990), Thailand (2006, 2007, 2010, 2013, 2017), United Kingdom(1987, 1989).

A8.8 Description of special mention at the Senate of the University of Colombo on 2019.09.05

A new planetary system 1133 light-years away was discovered by three Sri Lankan Scientists, including Prof. Chandana Jayaratne.

Discovery of a new planetary system 1133 light years away from our solar system by a University of Colombo M Phil student Mr. Mahesh Herath of Department of Physics, Faculty of Science, University of Colombo working in Sri Lanka under the guidance/supervision of Prof. Chandana Jayaratne (University of Colombo) and Saraj Gunasekara (ACCIMT)

- *A major discovery in cutting edge science with wide publicity received in the national and international astronomy arena.*
*Description attached**

A. 9 A BRIEF OVERVIEW OF APPLICANT- Prof K P S Chandana Jayaratne

Professor K P S Chandana Jayaratne is an old boy of the Nalanda College, Colombo-10 and also a recipient of the “Nalanda Keerthi Sri Award” given only to less than 10 eminent personalities produced by Nalanda. He entered in to the Faculty of Science, the University of Colombo in 1979 and passed out in 1983 with a BSc Physics Special Degree (Honours) and serving in the same university as a lecturer in Physics since 1984. Currently, he is serving as the Head of the Department of Physics, and the Director of the Astronomy and Space Science Unit, Department of Physics, University of Colombo, Colombo-03, Sri Lanka. He was the General President of the Sri Lanka Association for the Advancement of Science in 2018, where he raised funds to a record-breaking amount of nearly 40 million to conduct science and technology promoting activities in the country and also started the construction of the Science Tower building in the adjacent land which was not possible for over 30 years of struggling to construct the building by SLAAS in the past. He has done a yeomen service to develop astronomy as well as Lightning Physics research and lightning protection work in Sri Lanka in addition to his never-ending dedicated efforts on popularizing science in Sri Lanka.

He was also a person involved in establishing the biggest telescope in the country at the Arthur C Clarke Institute for Modern Technologies in Moratuwa. He is the National Coordinator and founder of the Sri Lankan Astronomy and Astrophysics Olympiad (2007) and Sri Lankan Junior Astronomy Olympiad (2011). The number of public talks, newspaper articles, TV and radio programmes on astronomy and science-related subjects came from him are well over 1000.

His PhD work has led to the Construction of an Atmospheric Physics and Thunderstorm electricity research laboratory in Sri Lanka and the development of PhD and other postgraduate degree awarding facilities in this field locally. He has supervised several PhD, MPhil and MSc research students. He is the founder Course Coordinator of the MSc Programme on Atmospheric Physics, Dynamical Meteorology & Natural Disaster Preparedness in the University of Colombo - the 1st MSc programme started at the Physics Department.

Prof Jayaratne has published over 150 research articles and publications in local and international journals. To his credit, he received in 1991 the “Third World Academy of Sciences Prizes for Young Scientists - The 1991 Prize for Physics awarded by NSF and in 1992, the GRC (General Research Committee of SLAAS) merit award for his contribution to Sri Lankan Science and in 1996. In recognition of his services, skills and capabilities, he was honoured by various national and international organizations with several distinguished honorary awards and citations with the number exceeding 20.

Prof Jayaratne has served in several Boards and Councils such as NIE, ACCIMT, SLSI, SLAAS, NRC, Institute of Physics and had been a chairman of a large number of committees and societies. His service as the Senior Student Counsellor of the Colombo University with the initiation of Counselling Centre, Cultural centre, Scholarship programmes for needy students and a talking library for visually handicapped students is commended by many. He is also a social worker involved in constructing large projects using his personnel money as well as through public support and through Methsaviya and the Rotary Club of Colombo Central.

This overview will be concluded with the extracts from the speech of the Chief Guest then Hon. Minister of Science, Technology and Research Mr. Susil Premajayantha delivered at the Induction ceremony of Prof. Jayaratne as the General President of SLAAS in 2018 “ Prof. Chandana Jayaratne is much more than just a distinguished scientist. He is a well known public figure and TV personality who had dedicated a large part of his professional life to promoting and popularizing science all over Sri Lanka. He has worked with academics and school teachers, school children and young inventors, politicians and administrators. Many young students will never forget the exposure to stars and planets they received through his personal efforts. His work in promoting and rewarding young schoolboy and schoolgirl inventors, with the assistance and sponsorship of the Sri Lanka Inventors Commission, has helped create a much-needed culture of innovation in Sri Lanka. He is a visionary with a wonderful track record of getting the job done. He has shown tremendous capacity that he has in institutional development in many occasions. The Sri Lanka Association for the Advancement of Science could not find a better leader to guide it through the year 2018 and, hopefully, beyond.”

ksnd Jayaratne

Date: 2022.07.10

Prof. K. P. S. Chandana Jayaratne

***A8.8 Description of special mention at the Senate of the University of Colombo on 2019.09.05**

A new planetary system 1133 light years away was discovered by three Sri Lankan Scientists including Prof. Chandana Jayaratne.

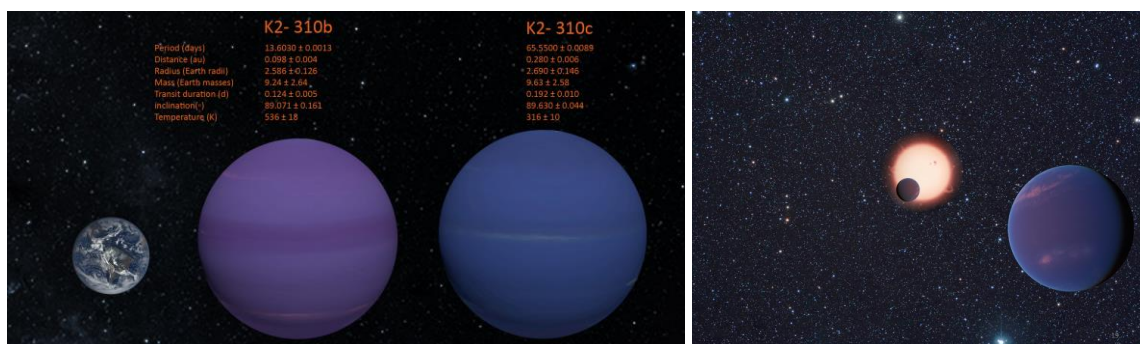
Discovery of a new planetary system 1133 light years away from our solar system by a University of Colombo M Phil student Mr. Mahesh Herath of Department of Physics, Faculty of Science, University of Colombo working in Sri Lanka under the guidance/supervision of Prof. Chandana Jayaratne (University of Colombo) and Saraj Gunasekara (ACCIMT)

- *A major discovery in cutting edge science with wide publicity received in national and international astronomy arena.*

Working in Sri Lanka, on June 14, 2019, we reported the discovery of a new planetary system around the star K2-310 (EPIC 212737443) using a combination of photometry, follow-up high-resolution imaging and spectroscopy. The planetary system consists of two sub-Neptune sized transiting planets with radii : 2.6 and 2.7 earth radii, orbital periods of 13.6 and 65.5 days, equilibrium temperatures of 536 and 316 K, respectively. Since the discovery was made using data obtained from a space mounted telescope called Kepler K2 mission, the orange colour star having a surface temperature 4684 K (less hotter than our sun) is named as K2- 310 while the two new planets that we discovered are named as K2-310b and K2-310c following the international convention of naming new planets (using the name of the telescope used to gather data).

The most important thing in this discovery is that the outer planet has the longest precisely measured orbital period from among the exoplanets so far discovered using Kepler mission as well as the lowest equilibrium temperature for a planet orbiting a star of spectral type earlier than M. Moreover, the second planet lies close to the inner boundary of the habitable zone for this system indicating a possibility of existing life. For the purpose of getting an early publication we obtained the information about the star from some foreign researchers and as such the publication which announced this discovery had several other authors too.

This is the first planetary system discovered by a team of Sri Lankan scientists and even in India there is only one such discovery made and that too was made in last year(2018). The publication on this discovery is available in Monthly Notices of the Royal Astronomical Society, Volume 488, Issue 1, p536-p546, 14th June 2019 under the title “Two temperate sub-Neptunes transiting the star EPIC 212737443”.



The two new planets compared to our own planet earth (at left), and the two exoplanets and the orange colour star K2-310 (at right).

Professor K P S Chandana Jayaratne – Short Profile
(Vidyakeerthi Professor K P S Chandana Jayaratne)

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Email: chandana@phys.cmb.ac.lk, chandanajayaratne@gmail.com



Professor K P S Chandana Jayaratne is an old boy of the Nalanda College, Colombo-10 and also a recipient of the “Nalanda Keerthi Sri Award” given only to less than 10 eminent personalities produced by Nalanda. He entered in to the Faculty of Science, University of Colombo in 1979 and passed out in 1983 with a BSc Physics Special Degree (Honours) and serving in the same university as a lecturer in Physics since 1984. Currently he is serving as the Head of the Department of Physics, Professor in Physics, Department of Physics, University of Colombo, Colombo-03, Sri Lanka and also as the Director of the Astronomy and Space Science Unit of the department. He was the General President of the Sri Lanka Association for the Advancement of Science in 2018,)-the premier body of almost all the scientists in Sri Lanka. He has done a yeomen service to develop the astronomy as well as Lightning Physics research and lightning protection work in Sri Lanka in addition to his never ending dedicated efforts on popularizing science in Sri Lanka.

He was also a person involved in establishing the biggest telescope in the country at the Arthur C Clarke institute for Modern Technologies in Moratuwa and was consultant to the Astronomy and Space Science division of ACCIMT for over two decades. Prof Jayaratne is also serving in the Ministry of Science and Technology advisory Committee on Sri Lanka Planetarium. He is the National Coordinator and founder of the Sri Lankan Astronomy and Astrophysics Olympiad (Since 2007) and Sri Lankan Junior Astronomy Olympiad (Since 2011) and also the Sri Lankan representative and a Board member of the International Board on Astronomy and Astrophysics Olympiad (since 2007) and a Member of International Committee on Space Research (COSPAR). The 23rd International Olympiad on Astronomy was held in Sri Lanka in October 2018 under the Chairmanship of Prof Jayaratne is rated as one of the best international Astronomy Olympiads conducted since the inception of IAO.

He is the Chairman of the SLAAS All-Island School Inventors Competition since 2007. Number of public talks, newspaper articles, TV and radio programmes on astronomy and science related subjects came from him are well over 1000.

His PhD work has led to the Construction of an Atmospheric Physics and Thunderstorm electricity research laboratory in Sri Lanka and development of PhD and other postgraduate degree awarding facility in this field locally. He has supervised several PhD, MPhil and MSc research students. He is the founder Course Coordinator of the MSc Programme on Atmospheric Physics, Dynamical Meteorology & Natural Disaster Preparedness in University of Colombo - the 1st MSc programme started at the Physics Department.

To mention a few of his activities in the field of lightning, Prof. Jayaratne was involved in preparation of Sri Lanka Standards for Lightning Protection Systems for SLSI(Sri Lanka Standards Institute) and was also a Member of the Advisory Committee on Lightning Protection Systems formulated under the directive of a Parliament Consultative Committee(since 2010) to Investigate Safety Against Lightning Hazards and a member

of the Governing Body(Interim), Establishment of National Lightning Safety Centre. Prof Jayaratne is also a member of the Telecommunications Regulatory Commission of Sri Lanka - committee on preparation of National Policy on Antenna Structures (Since 2008) which led to the construction of the tallest Lotus Tower in the city of Colombo to replace large numbers of antennas in the city by one. He is also the principal trainer on lightning protection under the Ministry of Science and Technology VIDARTHA program and had trained about 400 graduate technicians in Vidartha Centers all over the country on lightning protection technique fundamentals.

Prof Jayaratne has served in several Boards and Councils such as NIE, ACCIMT, SLSI, SLAAS, NRC, Institute of Physics and had been a chairman over 50 committees and societies. He was a Committee Member, National Climate Programme Committee (1994); Committee member of the National Education Committee Board on formulation the General Education Policy of Sri Lanka; Member, Presidential task force on Integrated Programme on Science and Technology(1998) and a Member of the Education Policy and Curriculum Development Committee based on STEM Education under the Ministry of Education.

His service as the Senior Student Counsellor of the Colombo University with initiation of Counselling Centre, Cultural centre, Scholarship programmes for needy students and a talking library for visually handicapped students is commended by many. He is also a social worker involved in constructing large projects such as Irrigation tanks and hospital wards, school libraries etc in remote areas using his personal money as well as through the public support and through Methsaviya and the Rotary Club of Colombo Central.

Prof Jayaratne has published over 150 research articles and publications in local and international journals. To his credit he received in 1991 the “Third World Academy of Sciences Prizes for Young Scientists - The 1991 Prize for Physics awarded by NSF and in 1992, the GRC (General Research Committee of SLAAS) merit award for his contribution to Sri Lankan Science and in 1996. In recognition of his services, skills and capabilities, he was honored by various national and international organizations with several distinguish honorary awards and citations with number exceeding 20.

National Apex Award - 2022 (a Lifetime Award) to Prof Chandana Jayaratne of the Department of Physics, University of Colombo in Recognition of Professional Excellence in the Field of Science and Technology



Prof. K P S Chandana Jayaratne of the Department of Physics, University of Colombo, was conferred with a lifetime award – the National Apex Award 2022 in Recognition of Professional Excellence in the Field of Science and Technology at the 3rd National Apex Awards Ceremony and the inauguration of the 35th Annual Conference of the Organization of Professional Associations(OPA) held at Cinnamon Lake Side Hotel on 16th of August, 2022. The award was presented to him by H. E. the President of Sri Lanka, Hon Ranil Wickramasinghe.

This award is presented to persons with dedicated professional envision, innovative, and strategically focused to develop the profession by carrying out progressive changes to the society for its wellbeing and, frequently champions change, in pursuit of continuous improvement and gaining a strategic advantage for the profession, serving as an ambassador par excellence for the profession whilst engaging in a process that contributes to the profession and keeps abreast in continuing professional development to be an outstanding achiever.
