

JAFFNA SCIENCE ASSOCIATION

யாழ்ப்பாண விஞ்ஞான சங்கம்

JSA

NEWSLETTER

செய்தி இதழ்



A QUARTERLY BULLETIN

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Editorial

Jaffna Science Association (JSA) recently held elections for new office bearers at the AGM. The new executive committee has decided to inform immediately its members and well - wishers through the pages of this Newsletter about its plans for future and the programmes accomplished during the recent past.

JSA came into existence eight years ago (in 1991) to promote the scientific activities in our region at a time when this region has been plunged into political crisis and war. This is the only regional organisation of its kind. When it looks back, it is proud of having done a tremendous service to the Jaffna society by disseminating scientific knowledge and improving research activities with available meagre facilities.

This year JSA has decided to promote an understanding of the complex relationship to man, society and nature as the essential basis of wholeness and well being. While there is undoubtedly a growing awareness and deep concern all over the world for the promotion and maintenance of a proper ecological balance, there is simultaneously a constant growing threat to the balance of nature in the Biosphere. This threat is more prevalent in the Jaffna region due to the ongoing war. Therefore we, as concerned citizens cannot still sit and watch our environment getting eroded. In view of this the theme of the year has been announced as "Changing Ecology - Challenges and Solutions" by the JSA.

We are requesting all our members to come forward with their participation in research, in lectures and seminar and in action - oriented programme to highlight the theme of the year.

Finally every organisation needs some financial input to keep it running. We are requesting you to become a life-member or renew your annual membership, and any donations from well-wishers are always welcome!

Due to the mass exodus of October, 1995 and the unsettled conditions that followed, the Newsletter could not be published for some time. It is being recommenced.

Message from the President

First of all I wish to express my grateful thanks to the members of JSA for the confidence they have on me by electing me as the president for this session 1999-2000.

When the world is preparing for the next millennium and getting ready to meet the challenges ahead, the responsibility to take the JSA to the 21st century had been given to me. It is a tremendous task and I hope with the co-operation of you all and my present capacity as the vice chancellor of the University of Jaffna, I can meet it.

JSA is a premier and prestigious organisation of scientists in Jaffna region. Past eight years of its existence, it has grown in quantity as well as in quality. The association has identified the need of this region and has accomplished considerable amount of work achieving its objectives.

It is customary to identify a general theme for the year and to steer activities during the year based on this theme. This year's theme is "Changing Ecology - Challenges and Solutions". The sectional committees are requested to identify various challenges and evolve ways and means to remedy them. In this regard, I expect full co-operation from all the members, NGO'S and the public.

During the Annual General Meeting, last year and before, the main concern of the members was to have a separate office building for JSA. The present executive committee has decided to work hard on this matter. We are trying to obtain a land from the government for JSA in and around Nallur area. By the mean time, I request the members also to suggest a suitable land and find someone who can generously donate the land for us.

JSA has been conducting Annual Sessions, in which research papers, review lectures and popular talks are presented. One can note a decline in research activities in some sections

of JSA. I request the members of such sections to increase their research activities and produce good quality output.

In addition, JSA has been conducting Science Day programme for school children, science exhibition, workshops, seminars and popular talks under the auspices of the various sections. The school science program also has been improved by introducing various activities. Last year Exhibition contest had been introduced in addition to Quiz contest and Oratorical contest. This year we are introducing Essay competition. I hope that all the schools will participate in these programmes actively and the students will get benefit from this. And also we are planning to hold a practice test in the Common General Paper which is to be offered by all G.C.E (A/L)-2000 students.

I welcome any suggestions or comments about the activities of the JSA. I shall leave no stone unturned to fulfil your expectations. I hope that all the members will co-operate and contribute towards the objectives of JSA.

Prof. P. Balasundarampillai

JAFFNA SCIENCE ASSOCIATION Executive Committee 1999-2000

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Prof. K. Balasubramanian - President Elect
Prof. V.K. Ganesalingam - Past President
Dr. S. Srisatkunarajah - General Secretary
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Prof. K. Sinnathamby - Chairman Section D.

JSA Theme for the year
"CHANGING ECOLOGY-
CHALLENGES AND SOLUTIONS"

JSA - NEWSLETTER

Editorial Staff

Dr. N. Sivayogan (Sec. A)- Chief Editor

Mr. K. Kesavan (Sec. B)

Mrs. M. Sivarajah (Sec. C)

Prof. N. Gnanakumaran (Sec. D)

The Jaffna Science Association Newsletter will be published quarterly. All material should be sent to the Chief Editor, JSA through the sectional editors. Deadline for next issue is October 22, 1999. The JSA editorial staff reserves the right to accept, reject or edit all material submitted for publication.

Newsletters are available to all members free of charge. It can be distributed to non-members provided they send the request with a self addressed 22cm x 9cm size envelop with stamp Rs: 3.50

The JSA is a scholarly, non-political, and non-profit professional association. Membership is normally open to persons having a Bachelor's degree. However, persons who have made valuable contributions to the science could also be considered for membership by the Executive Committee.

JSA - School Science Programme

The following competitions will be held in the respective dates:

Essay Competition October, 1999
Deadline for application September 07, 1999

Quiz competition
Oratorical competition } January, 2000
Exhibition competition }
Deadline for application October 30, 1999

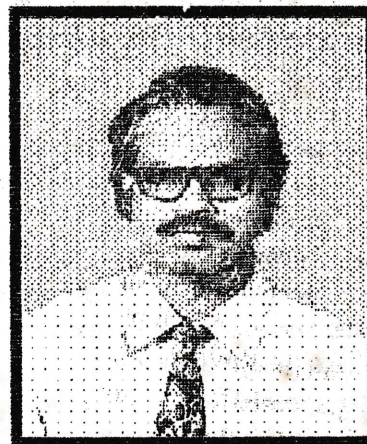
Schools are encouraged to participate by sending the completed applications.

For more detail and application forms, contact the General Secretary, JSA, C/o University of Jaffna, Jaffna.

Short letters in response to the Newsletter are also welcome.

- Chief Editor -

CONDOLENCE MESSAGE



Professor S. Mageswaran, former President and founder member of JSA passed away on February 02, 1998. This is infact a great loss to JSA. His talent and ideology had guided JSA to grow to its present strength.

JSA expresses its deep sympathy to his wife and family. In respect of his services to JSA, a special article written by Dr. N. Sivapalan has been included in this Newsletter.

JSA Annual Sessions - 2000 Call for Abstracts

Soon, JSA will invite members to submit abstracts of communication for presentation at the annual session, April 2000.

Members are encouraged to prepare now onwards.

- General Secretary -

Do you have any questions in science. Share with others! Experts opinion will be sought and published in this Newsletter.

Chief Editor

SECTIONAL NEWS

Section A

Proposed Activities

* Public Seminars

Monthly seminars will be organised in various topics covered under the pure science section. Also special workshops will be organised for school teachers.

* Programme for G.C.E (A/L) Students

In order to promote the science knowledge and scientific thinking among youngsters particularly school students, Section - A members are prepared to give talk in a school centre at each zone. Members are available to give talk on the following topics.

- Green House Effect
- Environmental Pollution
- Current Trends in Mathematics
- Mathematical Modelling
- E-mail and Internet
- Y2K Problem in Computer
- Micro Electronics
- Superconductors
- Conducting Plastics

Either a principal of a school through the Director of his zone or the Director of a zone may request at least three weeks in advance to have this programme.

Accomplished Activities

- A two days workshop was organised on the request of Department of Education, Jaffna on June 05 and 26, 1999 at Department of Physics, University of Jaffna. In this workshop Prof. K. Kandasamy delivered a series of lectures on "Matter and Radiation" and practicals related to the above topics were conducted in the Department of Physics, U/J. More than 50 teachers from schools in the Jaffna district participated in this workshop.

Handouts were also distributed to each participant.

- Another two days workshop was arranged for G.C.E (A/L) chemistry teachers on June 12 and 19, 1999 at the Department of chemistry, University of Jaffna. Prof.(Mrs) R. Mageswaran delivered a talk on "Atomic and Molecular Structure and Chemical Bonding". Dr. N. Sivapalan talked on "Chemical Kinetics". Dr.(Miss).S. Saminathan gave a talk on "Petroleum Products, Distillation Methods and Essential Oils". Practical sessions were also arranged for the participants. About hundred teachers had participated in this workshop. It is proposed to conduct seminars on "Coordination Chemistry" and "Environmental Chemistry" in the near future.
- On the request of Department of Education, JSA organised a refresher course to the G.C.E (A/L) Biology teachers on May 15 and 16, 1999 and May 22 and 23, 1999. In this course Dr. C. S. Nachinarkiniyan delivered a talk on "Microbes in Drinking Water and Drainage". Prof. V. K. Ganesalingam and Dr. (Mrs) P. Krishnarajah jointly gave a series of lectures on "Bio Diversity and Protection", "Destruction of Animals", "Destruction by Pollution", and "Man and Environment". Mrs. S. Kuganathan and Dr. R. Rajeswaran lectured on "Human Parasites". Mrs. R. Gnaneswaran gave a seminar on "Insect Pests". Dr. K. Chithravadivelu gave a seminar on "Fisheries Biology and Aquaculture". Mrs. N. Ravimanan gave a lecture on "Weeds", and Prof.(Miss) V. Arasaratnam and Mr. K. Pathmanathan had a seminar on "Molecular Genetics and Application". Many handouts and teaching materials were distributed to all participants. This course was attended by more than 50 teachers from various schools in Jaffna District.

- Dr.S. Srisatkunarajah, Senior lecturer, Department of Mathematics and Statistics delivered a public talk on "Trapped Modes", on May 25, 1999. It was highlighted that trapped modes exists in certain types of acoustic wave guides. These modes correspond to localised fluid oscillations and occur at frequencies at which propagating modes down the guide are not able to exist
- Mr.K.Pathumanathan, Lecturer, Department of Botany gave a talk on "Application of DNA Technology in Plants", on June 29, 1999. He discussed the basic structure of DNA and RNA, steps involved in recombinant DNA technology and gene transfer in plants and application of DNA technology etc..
- Mr.P. Ravirajan, Lecturer, Department of Physics delivered a talk on "Temperature Sensitive Ceramic Resistors", on July 29, 1999. In his talk, he discussed the applications of ceramics in everyday life and the preparation and characterisation of a temperature sensitive Barium Titanate Advanced Ceramic Resistor. He also discussed about the temperature sensitive behaviour of these resistors and their applications.

Section B

Proposed Activities

* Theme of the year

"Control of Pest and Diseases in Horticultural Crops in Jaffna Peninsula".

The above theme was introduced in order to eradicate pest and diseases specially on mango and jack fruits in horticultural crops in Jaffna peninsula.

* Public Seminars

It is planned to conduct five popular talks during this session. Soon, Prof K. Balasubramaniam will deliver a talk on

"Biotechnology" and Mr. P. Alvappillai will deliver a talk on "Clean Technology"

* Programme for G.C.E (A/L) Students

In order to help G.C.E (A/L) students a pamphlet having different current information based on computer science, biotechnology, agricultural science, information technology and clean technology will be published quarterly. The first issue is scheduled to be released in August, 1999. The second, third and fourth issues will be released in October, 1999, January and April, 2000 respectively.

Section C

Proposed Activities

* Public Seminars

A lecture on "Food and Nutrition according to Siddha- Ayurvedic concepts", will be held in Chavakachcheri, Nallur and Jaffna during September, 1999.

Two medical students will deliver a lecture on "Attempted Suicide" during, August, 1999.

* Programme for G.C.E (A/L) Students

It is planned to conduct lecture/demonstrations on "Learning of the Human Body", to G.C.E (A/L) students in ten leading schools in Jaffna district to motivate them to study the human body with interest.

Third year Medical Students will hold lecture/demonstrations for G.C.E (O/L) students on "Social Science" in ten selected rural schools. This programme will also be conducted from August, 1999.

The venues for the above will be announced soon.

Accomplished Activities

- Miss. S. Ambikaipakan, Lecturer, Department of Anatomy gave two lectures on "Learning of the Human Body" at Hindu Ladies College, Jaffna and Kokuvil Hindu College, Jaffna respectively. A

functional approach to the study of the human body was explained using gastro intestinal system as an example. Study methods were explained by using the eye, shoulder joint and hip joint.

- Mr. P. Jecitharan and Mr. S. Kuruparanantha 4th year Students, Medical Faculty, U/J gave a lecture on "Attempted Suicide" on August 05, 1999, and this was followed by a discussion by Prof. D. J. Somasundaram. The study dealt with the contributory factors of attempted suicide. The young age group, house wives, alary seeds as methods and problem with inter personal relationship were highlighted.

Section D

Proposed Activities

* Public Seminars

Public seminars on current issues will be organised for the purpose of developing awareness of socio-political, socio - economical and educational issues among the public.

* Programme for G.C.E (A/L) Students

A practice test in the newly introduced "Common General Paper" (CGP) will be held for the benefit of G.C.E (A/L) -2000 students towards the end of the year.

* Publication of Seminar Reports

Seminar papers of section D will be published as a part of dissemination of knowledge.

Accomplished Activities

- Dr S.K.S Nathan, former Senior Lecturer in Political Science delivered the first public lecture on "The Kargil Problem and the Indian Standpoint", on July 02, 1999. In his talk Dr. Nathan analysed the various issues in Kashmir problem that lead to the current Indian Military offensive. He further analysed about the subtle political

interest shown by several nations in this context.

- Prof P. Balasundarampillai, Vice Chancellor of the University of Jaffna, and the present president of the JSA delivered the second public lecture on "India's Electoral Districts and the Forthcoming Elections", on July 08, 1999. In his talk Prof. Balasundarampillai discussed the current political situation in India through an analysis of the geo-political and demographical aspects of the Indian subcontinent in relation to the electoral districts. He made special attention to the Tamil Nadu political situation also.
- To meet the popular demand, 400 copies of the proceedings of the seminar on "New Educational Reforms" (held on November 11, 1998) have been reprinted and is now available for sale.

PROFESSOR SIVAPATHASUNTHARAM MAGESWARAN: AN APPRECIATION

Professor Sivapathasuntharam Mageswaran. Professor of Chemistry and founder Head of the Department of Chemistry, University of Jaffna who rendered twenty three years of unstinted service to the University of Jaffna in particular, and to the Jaffna Society in general, died on February 02, 1998. This was an irreparable loss.

Born on March 28, 1942 Professor Mageswaran had his early education at the Kokuvil Hindu College and entered the then University of Ceylon as a Science undergraduate. After successfully completing the Special Degree Course in Chemistry in 1966 he was appointed as an Assistant Lecturer at the University of Peradeniya and in 1968 proceeded to the University of Sheffield, UK for postgraduate study.

After obtaining Ph.D for his thesis, which in the words of his co-supervisor "made a substantial contribution" on ylide Chemistry Professor Mageswaran returned to the

University of Peradeniya and actively participated in its teaching and research programmes. When the University of Jaffna was started as a Campus he willingly joined it as the founder Head of the Department of Chemistry. There could not have been a better choice for Head of the Department of Chemistry as he proved later.

As a gifted teacher, on the one hand, Professor Mageswaran produced several exceptionally good graduates who are occupying high positions in various parts of the world. On the other hand, as an able administrator he had a building erected for the Chemistry Department a decade ago that is comparable to laboratories in advanced countries even today.

Professor Mageswaran was a founder member of the JSA and became the first Chairman of the Section A when the JSA was formed in 1991. In the first annual sessions held in April 1992 Professor Mageswaran delivered the Section A chairman's address.

After the resignation of the elected Secretary of the Section A, JSA in 1991 I was fortunate to have been nominated as the Secretary by the Sectional Committee. This gave me the rare opportunity of working, in close association, with the man whom I revere as my teacher and mentor.

Throughout Professor Mageswaran's Chairmanship of the Section A, JSA I was overwhelmed to see his amazing capacities. He was able to comment intelligently on almost any topic in Science. We witnessed this when he chaired the various seminars and research paper sessions of the Section A. He tackled a problem by quickly capturing its entire picture and making a decision with foresightedness and without moving away from the objectives of the JSA.

Professor Mageswaran became the President - Elect of the JSA in 1992/93 and guided the association as its President following year. His Presidential Address "Performance of the Students in the G.C.E (O/L), G.C.E (A/L) and

Undergraduate Examinations" was a deep and thorough study of the prevailing state of our education.

In this study Professor Mageswaran noticed that performance in Science, Mathematics and English at the G.C.E (O/L) examinations and in the subjects of the Physical Science stream in the G.C.E (A/L) and Undergraduate examinations are poor. The suggestions made by him to improve this situation deserve serious and careful consideration by the students, teachers, educational administrators and parents. To call to mind Professor Mageswaran's concern for our students I have given below a summary of the important suggestions made by him (for more details see Proceedings of JSA, Presidential Addresses, 1994).

- 1) Emphasis must be on making the students to understand the principles rather than coaching them for examination.
- 2) Students should be encouraged to learn from texts (a part of the difficulty here is due to the lack of proficiency in English) and the reading habit has to be introduced at a very early stage in the schools.
- 3) In setting the question papers (for the G.C.E A/L Examination) special attention has to be paid to differentiate the really good students from the others.

In recognition of the invaluable service rendered by Professor Mageswaran the University of Jaffna awarded him an honorary D.Sc degree and made him an Emeritus Professor posthumously.

Dr. N. Sivapalan
University of Jaffna.

JSA Publications for Sale

1. The need for reform in the present system of education
Seminar papers, 1994
2. New educational Reforms
Seminar papers, 1998
3. தமிழ் விஞ்ஞானச் சொற்களின் ஆங்கில நேர்ப் பதங்கள்

Please contact : General Secretary, JSA

**JAFFNA SCIENCE ASSOCIATION
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Name : Membership: L/O

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Fax:..... E- Mail :

Institutional Affiliation:.....

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Please mail your completed form to the General Secretary, JSA, C/o U/I.

If you wish to submit an announcement for the next Newsletter, please send them to the Chief Editor, JSA.

Next copy Deadline : October 22, 1999
 Please include all your programmes for the next three months from the dead line.

**PRINTED MATTER
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To

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*Chief Editor
Jaffna Science Association
C/o Department of Physics
University of Jaffna
Jaffna, Sri Lanka.*