

ISLP Newsletter



2(4) December 2011

Thank you all for the past year and best wishes for a successful cooperation again in 2012. Let's promote statistical literacy together all over the world! Seasonal greetings, Reija, Sharleen and Pedro
ISLP Executive

in brief...

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Martha Aliaga

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Adult Literacy and Life Skills Survey in Canada

ISLP Newsletter is the newsletter of the International Statistical Literacy Project of IASE - the International Association for Statistical Education.

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Advancing Statistical Education in Australia



Christine Sergi, Eric Sowe, Michael Evans

by Gai Mooney

Over the next few years, schools in Australia will introduce the new Australian curriculum in place of the eight different state and territory curricula. The Australian Mathematics curriculum includes an increased focus on statistics education which will potentially lay the groundwork for more statistically literate citizens in the future.

The Australian Bureau of Statistics (ABS) and the Statistical Society of Australia Inc (SSAI) are both keen to support and assist teachers to effectively teach the statistics component. To this end an initial workshop was held on Monday 21 November, 2011 that brought leaders in the fields of statistics, education and professional development together with education decision makers from around Australia.

The day opened with a presentation by Margaret Bigelow from the Australian Curriculum and Assessment Reporting Authority describing the main changes in the new curriculum, followed by Professor Jane Watson from the University of Tasmania, outlining the main research findings from the last 20 years. This set the scene for the day's work to be placed in a

valid, coherent context. Then groups from each of the different areas worked together to delineate what was already useful, what other issues needed to be addressed and what possibilities existed to support teachers to improve statistical education in schools.

At the end of the day, action items were identified and a number of participants volunteered to take responsibility for these so the work can continue. Commitments were also made to continue the dialogue and effort, to ensure professional development and resources for statistical education will be available for the teachers who need them.



Nick Fisher and Siu-Ming

ITALIAN STATISTICS DAY

by *Francesco Michele Mortati*

On the 20th of October 2011 the Italian National Institute of Statistics (Istat) celebrated Italian Statistics Day, following the United Nations General Assembly resolution 64/267, that set up the first World Statistics Day. The goal of World Statistics Day was to strengthen the official statistics role not only for government but also, and above all, for the public.

This year Istat decided to celebrate the National Statistics Day not only at the Istat central office in Rome but also in other Italian cities, in cooperation with the Italian Statistical Society (SIS) and many university statistics departments. There were many events and most of these involved students.

In Rome there was a ceremony coordinated by Istat President Enrico Giovannini and SIS President Maurizio Vichi in the morning where many distinguished guests delivered awards to students, teachers and professors for their statistical works. In the afternoon the workshop "Open data" gathered many experts in order to discuss about Open Data's use, opportunities and risks. On the 21st of October, in the "La Sapienza" University of Rome, other events involved young researchers, university students and people who work for Istat. There was also a specific meeting for young and very young students: During this meeting experiences and projects, carried out in collaboration with Istat, were illustrated, in a humorous way, to involve these young people. The projects aimed at increasing young people's statistical literacy but also to make them aware of the population census, now in progress. The children played census, learning that it is very for society and helping increase their families' attention to it.

Not all meetings were formal, some just bringing statistics nearer to civil society and, in particular, to young people and researchers.

Martha Aliaga A Wonderful and Remarkable Colleague and Friend



With great sadness, we write to let you know that on Saturday, October 15, 2011, Martha Aliaga passed away from cancer, surrounded by her family. A world-renown educator and statistician and member of the International Statistical Literacy Project advisory committee, Martha impressed everyone she met, both personally and through her many professional accomplishments.

After receiving an undergraduate degree in mathematics from the University of Buenos Aires and a master's degree in statistics, she went on to earn her PhD in statistics from the University of Michigan, where she became an associate professor in the department of statistics. Co-author of the popular and widely acclaimed college textbook *Interactive Statistics*, she was the 2002 president of the Caucus for Women in Statistics, an elected council member of the International Statistical Institute, and a Fellow of the American Statistical Association (ASA).

Martha was the ASA the director of education creating the Educational Ambassadorship Program, Meeting Within a Meeting for statistics K-12 teachers, and STEW (a peer-reviewed repository of lesson plans for statistics K-12 teachers). She also introduced Census@School in the USA. Martha said she was attracted to the position of director because of the number of people she could help through the ASA. "I always thought I was successful as a teacher," she said, "but I could only help one student at a time." ASA Executive Director Ron Wasserstein noted, "We have lost a wonderful and remarkable colleague, and our sense of loss is great, but great also is our sense of privilege to have known and worked with her."

Martha loved her family dearly and is survived by her husband of 44 years, her three children and nine grandchildren. She has many other loving relatives in Argentina, Peru and around the world.

Statistics Olympiad at Córdoba, Argentina

by María Inés Rodríguez

The final stage of the Córdoba Statistics Olympiad (OEC) was held for the second consecutive year on October 28th at Universidad Nacional de Río Cuarto (UNRC). One hundred intermediate level students (between 11 and 18 years old), from different areas of the province of Córdoba, actively participated in the event.

The Olympiad was organized jointly by the Ministry of Science and Technology, the Ministry of Education of the Province of Córdoba, and the Department of Mathematics, Facultad de Ciencias Exactas, Físico -- Químicas y Naturales, UNRC.

This event had different aims for the different levels of education as follows:

- Increasing teachers and students' interest throughout the curriculum in mathematics and in statistical analysis to analyze and interpret information that comes from different sources and affects decisions in our uncertain daily life.

- Developing young individuals' ability to critically evaluate and to understand available information, making it a tool to improve the quality of their lives.

During the competition the participants were divided into five categories according to their age and worked in groups of two or three students, using statistical data in problem-solving activities.

At the end of the day an emotional closing ceremony



took place, in which awards and certificates were given to all the participants.

The ceremony was opened by the president of UNRC, Dr. Marcelo Ruiz. He praised the students' effort and the teachers' commitment, which contributed to the successful development of this academic event, highlighting that "having access to scientific knowledge in a public university should be a right for everybody".

Meanwhile, Mary Koberski, the Director of Science Dissemination from the Ministry of Science and Technology, said that these activities aim not only to train individuals to be capable of generating knowledge, but also to provide them with skills and abilities to be good people, as part of an appropriate ethical and moral education, thus promoting solidarity and interdisciplinary learning.

María Inés Rodríguez, the local coordinator of the Córdoba Statistics Olympiad, said that, the university must contribute to develop citizens' critical and democratic thinking. In this context, she said, "we believe that by teaching statistics we are enhancing the teaching and learning processes that contribute to develop those critical thinking abilities".

Instancia Provincial

Olimpiada de Estadística

Viernes 28 de Octubre

Universidad Nacional de Río Cuarto



Organizan

Centro de Enseñanza de las Ciencias
Departamento de Matemática
Facultad de Ciencias Exactas,
Físico - Químicas y Naturales de la UNRC

Objetivos

Fomentar el campo de conocimiento de la Estadística para potenciar procesos de enseñanza y aprendizaje que contribuyan a la construcción de un pensamiento científico tecnológico.

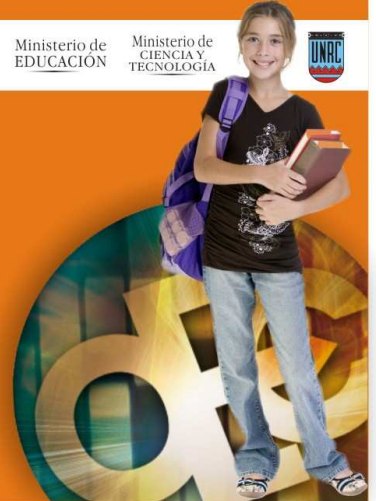
Impulsar el intercambio y la integración de conocimientos y experiencias Estadísticas y Matemáticas entre los educandos y educadores

Hora y lugar

Campus UNRC de 10 a 19 hs.

Más información

olimpiadasesadisticacba@gmail.com
www.mincytoba.gov.ar
www.exa.unrc.edu.ar



IAOS Conference on Official Statistics

Getting Our Messages Across - Strategies and Best Practices to Ensure the Use of Statistics in Decision Making,



Kiev, Ukraine, 12-14 September 2012. More information at:
<http://iaos2012.ukrstat.gov.ua/>

ISLP Poster Competition Winners



Winners - younger age division (age 12-15, born in or before 1995)

	COUNTRY	POSTER NAME	SCHOOL	STUDENTS
1ST PRIZE	Canada	La Pollution Lumineuse (light pollution)	Bliss Carman Middle School, Fredericton, New Brunswick	Holly Ayles and Emily Baxter
2ND PRIZE	Portugal	How the spread of dust in the atmosphere can contribute to reducing the growth of plants	Third Cycle and Secondary School of S. Pedro	Beatriz Rocha and Beatriz Morais
3RD PRIZE	New Zealand	Can you predict the weather at midday by looking out your window in the morning	Cashmere Primary School Christchurch	Megan Snell, Jack Boyd and Mitchell Sammut
HONORARY MENTION	Finland	Carbon dioxide emissions caused by private cars in Finland	Peltolan koulu	Mikko Chan and Miko Pusztai

by Reija Helenius

The ISLP project aims to increase awareness of statistics among students and teachers, and to offer resources that can promote statistical literacy throughout the world. The poster competition this year was open to students in two age divisions: born in or before 1995 (age 12-15), and students born in or before 1992 (age 15-18).

The theme for the competition was ENVIRONMENT.

This year, close to 5000 students participated, from 17 countries. In each country, a country coordinator for ISLP worked very hard to encourage schools and teachers to participate, provided resources and guidelines, and arranged a judging panel and the judging process.

The posters were first judged within their countries. After that, the national winner posters were evaluated by an international jury consisting of members from six countries, and chaired by

Martha Aliaga (USA), who was the chair

Chris Wild (New Zealand)

Iddo Gal (Israel)

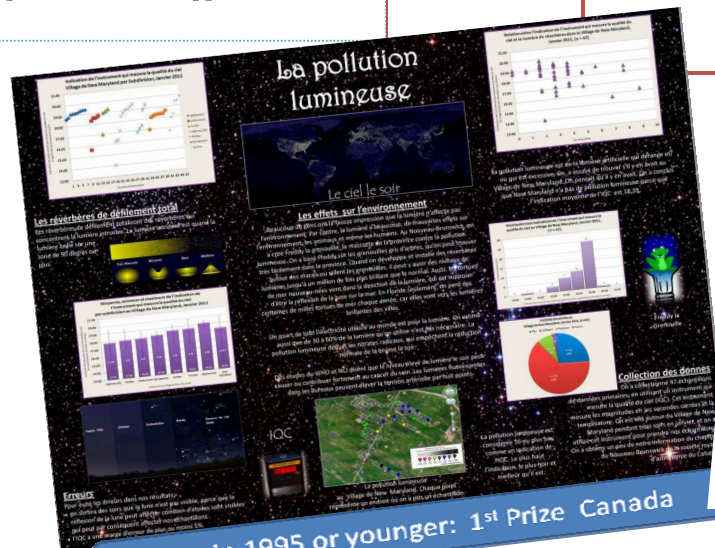
Metka Zaletel (Slovenia)

Christine Reading (Australia)

Enriqueta Reston (Philippines)

Winners - older age division (age 15-18, born in or before 1992)

	COUNTRY	POSTER NAME	SCHOOL	STUDENTS
1ST PRIZE	Finland	Recycling and waste disposal	Lyseonpuiston lukio	Leevi Leppäjärvi, Janne Mustaniemi and Iidaliina Uusitalo
2ND PRIZE	Portugal	Experience "Irradiated Seeds Germination" – What is the effect of different radiations on plant growth?	Secondary School of Portela	Margarida Santos and Sara Brites
3RD PRIZE	Canada	Black Gold & Alberta's Rivers	Webber Academy, Calgary Alberta	Cecilia Wright
HONORARY MENTION	Hungary	How do we think we change our environment in Hungary?	ELTE Apáczai Csere János Gyakorló gimnázium	János Mena, Gábor Galgóczi and Gergely Dálya



Born in 1995 or younger: 1st Prize Canada



Born in 1992 or younger: 1st Prize Finland

Promoting statistical literacy through poster displays

by Minna Korhonen



In total Statistics Finland has organized five statistical literacy competition poster displays. Our biggest effort was the display organized in cooperation with the Finnish Science Centre Heureka in October 2011.

This display of international and Finnish awarded posters drew approximately 200 visitors during the weekend and was a great opportunity to market future competitions as well as statistics in general. Special attractions of the display were the students presenting their hard work and answering questions from the audience in front of their posters. The other displays were organized at the University of Helsinki and at Statistics Finland during various stakeholder events.

Tip of the day: For an impressive display laminate and frame the printed posters.

Downloadable programs and e-books

by Margaret MacDougall

Sandy MacRae from the University of Birmingham, UK, has created two web sites communicating basic statistical ideas. One is for teachers and students and the other for non-statistical professionals in quality assurance or product development in industry.

www.statbasics.com shows extracts from a multimedia teaching program for students of any age encountering statistics for the first time. It was launched in 1998 at ICOTS 5 in Singapore. In its original form, the program runs on a network with many students, monitored by tutors, each user having an individual login that keeps records of progress, bookmarks and tutor-created study plans. The networked version is used in more than 200 schools and universities in several countries for private and group study and for classroom demonstrations with a projector. A single-user version on CD is mainly used as a refresher resource by postgraduate courses that have students on placements in clinical settings. Now three new versions have been developed for individual student users. Each version contains part of the material from the main program and additionally includes an integrated textbook which can be consulted on-screen from within the program with a single click whenever a text-based explanation is wanted. The new programs can be downloaded free from the web site and run in Demo mode, but before the program and e-book can be used to the full it is necessary to supply a validation code which is obtained from the web site at a cost of £6, payable in any currency through PayPal. Printed versions of the textbooks can also be bought from the site.

In some industries, such as food or cosmetics, the acceptability of a product has to be assessed by the human senses and www.difftest.co.uk is designed for non-statisticians concerned with product quality or development there. It provides a free, downloadable calculator for interpreting data, both where the objective is to demonstrate that there is a significant difference and the much more difficult case where the aim is to demonstrate that any difference is negligible. The web site explains the fundamentals of sensory difference tests, significance and confidence intervals at a level accessible to practical people as well as describing in detail how to use the calculator and illustrating it with examples.

Canada • Adult Literacy and Life Skills Survey

by Mary Townsend

Adults are increasingly called upon to adapt to rapid changes occurring in their daily lives. Numeracy skills are critical to individuals being able to function well in today's complex societies. **In addition to basic competence in working with numbers, the quantitative literacy skills employers seek include some knowledge of statistics, probability, mental computation strategies, some grasp of proportional reasoning or modeling relationships, and broad problem solving and communication skills about quantitative issues.**

Workable knowledge and skill related to mathematical concepts are increasingly required to succeed in fulfilling roles as family members, workers, consumers and members of communities.

Many adults in OECD countries seek opportunities to update their skills in a variety of learning contexts – adult education centres and community colleges, vocational and technical schools, work-based and online study programmes, colleges and universities – in order to improve their employability in the changing global economy. Even as more opportunities emerge, mathematics remains a “gatekeeper” to achieving success for many young people and adults.

The precise set of mathematical skills school graduates should possess in order to be adequately prepared for tertiary education, employment and citizenship remains an area of study and of impassioned debate. Numeracy is a key to being able to **interpret** graphs, charts and statistical data.

Consequently, in addition to job-specific numeracy skills, education policy must consider numeracy in broad civic, social and economic contexts. These contexts pose demands that call for the type of information collected for the numeracy domain in the ALL survey. Information about the numeracy proficiency of students, workers and citizens is critical to understanding human capital supply, planning effective school-based and lifelong learning opportunities, and appreciating the factors that affect citizens' ability to enhance their well being.

See the second Literacy for Life report at <http://www.statcan.gc.ca/pub/89-604-x/89-604-x2011001-eng.htm>

Building statistical literacy through sport

by Robert Letheby

The Australia Bureau of Statistics has recently released a suite of web based resources known as "Footy Stats" to help build the statistical literacy of Australia's Indigenous youth.



The 'Footy Stats' activities provide a fun and interesting introduction to statistics for Australia's Indigenous population, many of whom live in remote locations away from the major urban centres. The program uses sport (Australian Rules Football) as a way of engaging middle-years Indigenous students in educational activities to promote statistical literacy and improve capability.

The ABS Footy Stats activities are based on the concept of learning through active participation and discussion. As such, it is not a program based in a classroom or through the use of static or interactive materials on a website. Given the challenges faced in working with communities which may have limited access to educational resources (either human or IT in nature), where general literacy levels may be relatively low, and where the Indigenous population is highly mobile in comparison to the non-Indigenous population, the approach to building statistical capacity has focussed on using the love of sport as a denominator

common across much of Australia's Indigenous youth in terms of something that will engage them and form the basis for the learning experience. An adult facilitates the group activity and discussion, using the resource materials freely available. To complement the existing reference materials on the ABS website, a series of short videos that show how to undertake the activities is

scheduled to be available on the website (and via DVD) by February 2012. This will assist both the activity coordinator as well as the children to understand what the activity involves and makes the learning experience more enjoyable and beneficial. The activities form part of the ABS Indigenous Community Engagement Strategy (ICES) which provides a framework for building stronger relationships with Australian Indigenous communities and organisations by increasing Indigenous Australians' understanding of and participation in ABS data collections; returning statistical data to Indigenous communities; and providing training and technical assistance to Indigenous communities in order to increase their awareness of, and access to, and use of statistical information. For further information see:

<http://www.abs.gov.au/websitedbs/a3121120.nsf/51c9a3d36edfd0dfca256acb00118404/5b3657b0c50558a1ca25791a0080c50c!OpenDocument>



Helping data users speak a common language

by Robert Letheby

In December 2011, the Australia Bureau of Statistics is scheduled to release a substantially revised version of an existing product, Statistical Language. The objective of the resource is to assist those who need to use data understand a range of common statistical terms and concepts. It is not a glossary, but a resource which both defines the statistical term/concept and discusses how it is used. The concepts are grouped into statistical themes. Unlike the previous version of the product, the new version is no longer a catalogued product but simply a series of web pages which describe a common statistical concept and include a visual animation on most pages to help explain the term, rather than relying solely on the printed word. The animations are intended for wider access through options such as YouTube or Facebook to overcome the challenge of reaching those who would not consider going to the website of a government statistical agency.

The Statistical Language web pages can be access via the ABS

Understanding Statistics portal:
<http://www.abs.gov.au/websitedbs/a3121120.nsf/home/Understanding%20statistics?opendocument#from-banner=LN>



ISEC2012 - The third biennial International Statistical Ecology Conference is now open for registration. The conference will be held 3-6 July 2012 and is hosted by the Centre for Ecological and Evolutionary Synthesis, Department of Biology, University of Oslo. It will take place at Sundvolden Hotel outside Oslo. ABSTRACT SUBMISSION DEADLINE IS 20 JANUARY 2012. Further information about the conference, workshops and abstract submission can be found at the conference website:

<http://www.cees.uio.no/isec2012/>

Best Cooperative Project Award in Statistical Literacy

The applicants, the jury, and the winners

by Pedro Campos

Every two years, since 2007, ISLP chooses the Best Cooperative Project Award in Statistical Literacy. In this year's edition, six applications were analyzed by the jury: 'ABS Footy Stats' Program (Australia); Set of initiatives to promote statistical literacy in Bulgaria (Bulgaria); Actions of the World Statistics Day 2010 in Finland (Finland); North-South-South (NSS) International Collaborative Project in Biostatistics, (Ethiopia, Belgian - Flemish, and Mozambique); Statistics Literacy in Persia Project (Savade Amari) (Iran); and a post-graduate program in official statistics (New Zealand)

The jury of the award included Larry Weldon, from Canada (Department of Statistics and Actuarial Science, SFU), Tatevik Zohrabyan (from Armenia - Texas A&M University and Senior Consultant at Baker Tilly Armenia - ICARE Foundation),

Adriana D'Amelio (Argentina - Universidad Nacional de Cuyo and ISLP) and Pedro Campos (Portugal - Statistics Portugal, University of Porto, and ISLP), who was the chair. The main criteria for the Best Cooperative Project Award in Statistical Literacy are based on the quality of the project resources, the presence of concepts of statistical theory, the pedagogically examples contributing to the development of the information society, the cooperative involvement with other partners, and the international outreach making creative use of available resources. The choice was not easy, due to the quality of the projects, but two winners were found:

North-South-South (NSS) International Collaborative Project in Biostatistics from Ethiopia, Belgian (Flemish), and Mozambique); and the **post-graduate program in official statistics** (New Zealand).

The awards were announced at the ceremony in Dublin, last August, during the 58th congress of the International Statistical Institute.



Reija Helenius (ISLP Director), and Sharleen Forbes, as the representative of the "post-graduate program in official statistics", the co-winner of the Best Cooperative Project Award in Statistical Literacy.



Reija Helenius (ISLP Director), and Mr. Yegnanew Alem (from Hawassa University), on the behalf of the project coordinator, Mr. Yehenew Getachew (from Jimma University), as the representative of the co-winner North-South-South (NSS) International Collaborative Project in Biostatistics.



IASE new Executive Committee for 2011- 2013

IASE now has a new Executive Committee for 2011-2013 as follows after the appointment of four new Vice Presidents:

President: John Harraway
(University of Otago, New Zealand)

Past-President: Helen Macgillivray
(Queensland University of
Technology,
Australia)

President-elect: Iddo Gal
(University of Haifa, Israel)

Vice-Presidents:

Joachim Engel (University of
Hannover, Germany)

Tae Rim Lee (Korea National Open
University, Korea)

Irena Ograjensek (University of
Ljubljana, Slovenia)

Alejandra Sorto (Texas State
University, United States)

Jessica Utts (University of California,
Irvine, United States)

Best Cooperative Project Award in Statistical Literacy

The NSS project in biostatistics at a glance



by Yehenew Getachew

The North-South-South (NSS) project in Biostatistics constitutes an international collaboration between different Belgian (Flemish), Ethiopian and Mozambique Universities under the umbrella of the Flemish interuniversity Council, VLIR-UOS (the logo is a reflection of that as it combines the Belgian, Ethiopian and Mozambique flag). From the very start, the aim of the project was to start up a new or reinforce existing postgraduate programs in applied statistics in Ethiopia. The project originates from the existing Institutional University collaboration programme with Jimma University, IUC-JU, (for more background information, consult www.iucju.ugent.be) which currently coordinates the NSS project in the south. One of the objectives of the IUC programme was to establish a postgraduate (at MSc level) programme in Biostatistics at Jimma University. It seemed, however, more appropriate to open up this project to other Ethiopian Universities. After establishing contacts with interested Ethiopian universities, the NSS project in Biostatistics was successfully defended and started in 2009.

Statistics New Zealand and NAOS (Network of Academics in Official Statistics)

by Sharleen Forbes

In December 2006 academics from the statistics departments of all New Zealand universities were invited by the national statistics office, Statistics New Zealand to meet and give advice on raising statistics capability. Collaborative initiatives that have been developed include a national certificate in official statistics and an honours/ masters paper in official statistics. It was announced at the 58th ISI WSC 2011 in Dublin that the latter project, "A post-graduate program in official statistics" was a co-winner of the Best Co-operative Project Award in Statistics Literacy.

The post-graduate project aimed to give students familiarity with:

- key aspects of Official Statistics, as distinct from other branches of statistics;
- the legal and ethical constraints on organisations producing Official Statistics;
- the principal methods for data collection, analysis and interpretation of health, social and

economic data, including spatial data;

- and methods for presenting and preparing commentaries on Official Statistics;
- using real data and examples from Statistics New Zealand.

The course was taught simultaneously across New Zealand Universities using an advanced video-conferencing and interactive matrix grid. Teaching staff included the Statistics New Zealand staff (Mike Camden and Daniel Griffith), the Professor of Demography from Waikato University (Natalie Jackson) staff from Auckland (Professor Alan Lee and Andrew Sporle), Canterbury (Dr Greg Breetzke) and Victoria (Adjunct Professor Sharleen Forbes and Dr Richard Arnold) Universities. Students from Otago University also participated with John Harraway acting as their course coordinator. All lectures were video recorded and posted on a dedicated website http://msor.victoria.ac.nz/Courses/ORST482_2011T2/CourseOutline that is open for public viewing. The course was assessed by five assignments each worth 20%. In its first year, 2011, twenty-nine students from three different universities participated. All students completed all the assignments, achieving pass grades of B- to A+.

India

Award. Professor D. S. Hooda, Dean (Research) and Head of the Mathematics Department at Jaypee University of Engineering and Technology, India, has just been given the Distinguished Service Award of Vijnana Parishad of India. This is his second academic award, the first awarded by the Indian Society of Information theory and Applications in 2005 for outstanding contributions to development and research in Information Theory.

