

## CURRICULUM VITAE

**Prof. M.A.K. Lakshman Dissanayake**

### PERSONAL

**NAME :** *Vidya Nidhi (Professor) Malavi Achchi Kankanamge Lakshman DISSANAYAKE*

**DATE OF BIRTH :** 03 February, 1945  
**PERMANENT ADDRESS :** 45, Park Avenue, Dangolla, Kandy, Sri Lanka.  
**NAME OF SPOUSE :** Sujatha Dissanayake  
**CHILDREN :** Son: Dr. Sahan Dissanayake (Ph.D.)  
 Daughter: Dr. Nishaka Dissanayake (MBBS)

**CONTACT DETAILS: Telephone:** Home: 081 2384365  
 Mobile: 0777 130667  
**E-mail:** makldis@yahoo.com

### EDUCATIONAL QUALIFICATIONS:

**B.Sc. (Honours) Physics Major (1970);**

University of Peradeniya, Sri Lanka.

Second Class Upper Division (Honours);

**M.S., Ph.D. (1977) in Experimental Solid State Physics,** Indiana University, Bloomington, Indiana, U.S.A.

**Ph.D. Thesis Title:** An investigation of the optical properties of the transition metal dioxides CrO<sub>2</sub>, VO<sub>2</sub>, MoO<sub>2</sub> and WO<sub>2</sub> from 0.2 eV to 6.0 eV in relation to the structure of the cationic d-bands. Period of research work: 1973-1977

**Supervisor:** Prof. Lloyd L. Chase (Currently at Lawrence Livermore Laboratory, USA).

### RESEARCH INTERESTS:

#### **Experimental Solid State Physics, Physics Education**

Research Topics: Synthesis and characterization of Nano-composite solid polymer electrolytes, Solid Electrolytes, Polymer Electrolytes, Cathode Materials; Solid State Batteries, High Temperature Superconductors, Solar Cell Materials and Dye sensitized solar cells, Optical Properties of Solids and Photo-voltaic Semiconductors; Physics Education and Science Education.

### PRESENT POSITIONS

Research Professor, Condensed Matter Physics Division, Institute of Fundamental Studies, Kandy, Sri Lanka

Professor Emeritus, Department of Physics, University of Peradeniya, Peradeniya

**FORMER POSITIONS**

**Senior Professor in Physics, University of Peradeniya; Retired on 30<sup>th</sup> September 2010.**

**Director, Postgraduate Institute of Science (PGIS), University of Peradeniya, Peradeniya, Sri Lanka (2003-2008)**

Chairman, Board of Study in Science Education, Postgraduate Institute of Science(PGIS), University of Peradeniya, Sri Lanka ( From1997)

**Chairman, Asian Physics Education Network (ASPEN) (2003-2007)**

**Member, Board of Management, National Science Foundation, Sri Lanka (2005-2008)**

Member, Standing Committee on Postgraduate Education and Research, University Grants Commission, Sri Lanka(From 2004)

Associate Member of the International Commission on Physics Education (ICPE) of IUPAP.

Head, Department of Physics, University of Peradeniya, Peradeniya (1989 - 1992 & 2000-2001)

Chairman, Science Faculty Research Committee, University of Peradeniya (2001-2004)

Acting Dean, Faculty of Science, University of Peradeniya (1-30 April 2000)

Coordinator, Physics Education M.Sc. program for Graduate Science Teachers.

**EMPLOYMENT HISTORY (*Teaching/Research/Administration*):**

1971 – 1972 - Assistant Lecturer in Physics, University of Peradeniya, Sri Lanka

1973 - 1977 - Graduate Student/Research Assistant at the Department of Physics, Indiana University, Bloomington, Indiana, USA.

1977 - 1988 - Lecturer/Senior Lecturer in Physics, University of Peradeniya

1984/85 - Visiting Postdoctoral Research Fellow, Chalmers University of Technology, Gothenburg, Sweden; (*One Year Sabbatical leave from Peradeniya; Collaborator: Prof. Arnold Lunden*)

1989 - Merit promotion to Associate Professor in Physics (based on Research)

1990 - Appointed to Professor Grade II, in Solid State Physics at the Department of Physics, University of Peradeniya.  
(*First Professor of Solid State Physics in Sri Lanka*)

1989 - 1991- Head (Chairman), Department of Physics, University of Peradeniya.

1987 - 1991- Senior Research Associate, Institute of Fundamental Studies (IFS), Kandy, Sri Lanka (a part-time position, to develop a research program in High Temp. Superconductivity from scratch)

1992- **Visiting Professor, University of Aberdeen, UK**, on sabbatical leave from Peradeniya University. (*One year Postdoctoral research fellowship from European Union; Collaborator: Prof. A.R. West*)

1993- Post-doctoral Research Fellow at the Department of Chemistry, University of Oklahoma, Norman, Oklahoma, USA: *One year, on sabbatical leave from Peradeniya, University; Collaborator: Prof. Roger Frech*).

**1997-2008 Senior Professor in Physics & Professor of Solid State Physics, University of Peradeniya.**

**1997-2008 Chairman, Board of Study in Science Education, Postgraduate Institute of Science(PGIS), Peradeniya, Sri Lanka (A part time position)**

**2001 (April-December):** Spent 9 months at Chalmers University, Gothenburg, Sweden as a senior postdoctoral research fellow.

2000-2001- Head (Chairman), Department of Physics, University of Peradeniya

**2003-2008 Director, Postgraduate Institute of Science, University of Peradeniya**

**2008/2009 Visiting Professor (Teaching & Research) at University of Illinois at Chicago (UIC), USA (one year on sabbatical leave)**

**From August 2009 to September 2010: Continued as Senior Professor of Physics, University of Peradeniya.**

#### **MEMBERSHIPS (HELD):**

**Fellow, National Academy of Science, Sri Lanka(from 1999-)**

Member of the Council, National Academy of Science, Sri Lanka (1999-2001)

**Fellow, Institute of Physics, Sri Lanka**

Member, American Association of Physics Teachers (AAPT).

Member, International Society for Solid State Ionics.

Member of the Executive Committee, Asian Society for Solid State Ionics (From1988).

Associate, International Centre for Theoretical Physics (ICTP), Trieste.

President, Section E1 (Physical Sciences), Sri Lanka Assn. for Advancement of Science, 1990.

Member, Steering Committee on Physical and Mathematical Science, National Science Foundation(Former NARESA), Sri Lanka(1988-97)

Member, Standing Committee on Science, University Grants Commission(1994-2003)

Member, Board of Management, Postgraduate Institute of Science(PGIS) (1998-2008)

Member/Convener, Presidential Task Force on Integrated R&D in Science and Technology for the Government of Sri Lanka (1997-2000)

Member, Editorial Board, Asia Pacific Physics Bulletin (UNESCO)(1988-92).

Member, Editorial Board, The Journal of the National Science Foundation of Sri Lanka(1999-2003).

Editor-in-Chief, Ceylon Journal of Science (Physical Science) (1990-2003)

**Member, Science & Technology Ministerial National Taskforce for developing the Five Year Science and Technology Strategy for Sri Lanka (2010-2015), adapted by the Government of Sri Lanka.**

#### **CURRENT MEMBERSHIPS (2012)**

**Member, Board of Governors, Institute of Fundamental Studies, Kandy, Sri Lanka**

**Member, Board of Management, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka**

**Member, Faculty Board Of Science, University of Peradeniya**

**Chairman, Basic Science Research Panel, NSF**

**Member, International Partnership Committee, NSF**

## TEACHING EXPERIENCE:

### *Undergraduate Teaching: 1977-2010 (40 years)*

Wide experience in formulation of curricula and teaching undergraduate courses in Physics since 1971 and teaching as a Visiting Professor at University of Illinois at Chicago (UIC).

### *Graduate level teaching: 1990-2010 (20 years)*

Energy & Environment, Solid Electrolytes, Polymer Electrolytes, Superconductivity, Physics Education, Physics of Materials, Experimental Techniques for Materials Characterization. Nanotechnology.

## RESEARCH EXPERIENCE

### **Experimental Solid State Physics at Indiana University, Bloomington, IN, USA (1973-1977):**

I was trained in Experimental Solid State Physics at the Laboratories at Indiana University, Bloomington, Indiana, USA from 1973 to 1977 under the supervision of Prof. Lloyd L. Chase.

Preparation of materials by solid state sintering, study of reflectance spectra, thermorefectance and modulated thermorefectance spectra of transition metal dioxides  $\text{CrO}_2$ ,  $\text{VO}_2$ ,  $\text{MoO}_2$  and  $\text{WO}_2$  from 0.2 eV to 6.0 eV (near UV to IR) were the main areas of training. I obtained the

M.S. in 1974 and the Ph.D. in 1977 in Experimental Solid State Physics from Indiana University, USA.

**Ph.D. Thesis Title:** *An investigation of the optical properties of the transition metal dioxides  $\text{CrO}_2$ ,  $\text{VO}_2$ ,  $\text{MoO}_2$  and  $\text{WO}_2$  from 0.2 eV to 6.0 eV in relation to the structure of the cationic d-bands.*

After returning home in 1977, I devoted most of my time in Developing **from scratch**, the Solid State Physics Research Laboratory at the Department of Physics at University of Peradeniya.

I was successful in attracting a 3 year major European Union research Grant (1992-1995) between my university (Peradeniya), Aberdeen University, UK and INPG, Grenoble, France to develop new fast ion conducting ceramics glasses and polymers. This project was completed very successfully including the training of two Ph.D.s and publishing several research papers.

### **Postdoctoral Level Research Training in Solid State Physics/Solid State Chemistry**

**a) Department of Physics, Chalmers University of Technology, Gothenburg, Sweden 1984/85 (one year)**

Carried out research on  $\text{Li}_2\text{SO}_4$  based solid electrolytes as a Senior Postdoctoral Fellow with Prof. Arnold Lunden's group.

Solid State Sintering and solid State Chemistry was extensively used for material preparation and characterization.

**b) Department of Chemistry, Aberdeen University, UK (1992/1993 (one year)):**

I spent one of my sabbatical years (1992/1993) as a Visiting Research Professor at Aberdeen University, UK working on novel Li-ion conducting solid electrolytes in collaboration with Prof. A.R. West at the Department of Chemistry. Professor West is a pioneer in Solid State Chemistry.

**c) Department of Chemistry, Oklahoma University, Normal, OK, USA (1993/1994 (one year)):**

One year of my sabbatical leave (1993/1994) was spent at the University of Oklahoma as a senior postdoctoral fellow, working on polymer electrolytes in collaboration with Prof. Roger Frech, Professor of Chemistry.

I received extensive training in Polymer Electrolytes during this period.

I returned to Sri Lanka in 1994 and continued my teaching and research work at Peradeniya University.

**d) Department of Physics and Engineering Physics at Chalmers University of Technology, Gothenburg, Sweden (April-December 2001) 9 months**

Research on polymer electrolytes in collaboration with Prof. B.\_E. Mellander, Professor of Physics.

**e) Department of Physics at University of Illinois at Chicago (UIC), USA: 15 August 2008 to 15 August 2009 (one year)**

Visiting Professor (Teaching and Research); Carried out a successful project on CdTe based solar cells yielding efficiencies of about 16%. Taught Physics courses for Engineering and Pre-Medical undergraduates.

**Research Collaborations:**

I have been largely responsible for initiating several collaborative research projects between Peradeniya University and Chalmers University of Technology, Sweden, Technical University of Denmark, Aberdeen University, Scotland, INSEEG, Grenoble, France, ICTP, Trieste, Italy, Chulalongkorn University, Thailand, through the sponsorship of International Science Programs, Uppsala University, Sweden, The British Council, UNESCO and the European Union. I was also responsible for attracting major research funding to the Department of Physics at Peradeniya from International Program in Physical Sciences, Uppsala University (1984-2007) and European Economic Community (1992-1995).

A research collaboration was started with University of Illinois at Chicago, Sivananthan Laboratories, Illinois and a multi university research team from Sri Lanka on R&D training on CdTe based solar cells (2008-2012).

**Currently (2014)**, research collaborations are active with Chalmers University of Technology, Gothenburg, Sweden on Dye sensitized solar cells, University of Illinois and Sivananthan Laboratories, Illinois, USA on CdTe based solar cells, University of Malaya, Center for Solid State Ionics, on dye sensitized solar cells.

### **International Conferences Organized in Sri Lanka:**

I was the Chairman of the Organizing Committee of the following International Conferences held in Sri Lanka:

**Three** major International Symposia on Solid State Physics (1987, 1989 & 1991) at the IFS.  
**Two** International Conferences on Solid State Ionics (1996, 2006),  
**One** Regional workshop on Science Education (1998) and  
**Two** Regional workshops Physics Education(2001, 2002).  
**One** international Conference in Statistics (2004)  
**One** International Conference on Solar Energy at the IFS (2011)

I have Participated in many international research conferences, workshops courses and seminars, often as an invited speaker.

There are more than **160 research publications**, out of which **60 are in internationally refereed journals**.

I was the **Editor** of the Proceedings of three international symposia of Solid State Physics, Two Asian Solid State Ionics Conference Proceedings (1996, 2006) and three course units for the Open University of Sri Lanka. Author of seven text books on Physics for G.C.E. Advanced Level students ( in Sinhalese Language).

List of research publications are given as a separate document.

### **Post-graduate students/theses supervised (Solid State Physics/Solid State Chemistry/Materials Science):**

1. Study of Characteristics of Thin Film Solid State Cells-  
**J. Karunamuni, M.Sc. by Research**, University of Peradeniya (1988).  
 Supervisor: Prof. M.A.K.L. Dissanayake
2. Electrical Conductivity and Phase Diagram Studies of Some Solid Electrolytes based on Li<sub>2</sub>SO<sub>4</sub> and Na<sub>2</sub>SO<sub>4</sub>-  
**P.W.S.K. Bandaranayake, Ph.D. Thesis**, University of Peradeniya (1991).  
 Supervisors: M.A.K.L. Dissanayake, M.A. Careem and B.E. Mellander.  
*(The very First Ph.D. in Physics from a Sri Lankan university !)*
3. Ionic Conductivity and Phase Diagram Studies of Li<sub>2</sub>SO<sub>4</sub>-Li<sub>3</sub>PO<sub>4</sub> System.-  
**C.N. Wijesekara, M.Phil. Thesis**, University of Peradeniya (1991)

- Supervisors: M.A. Careem, M.A.K.L. Dissanayake and B.E. Mellander.
4. Preparation and Characterization of Some Ceramic Cuprate Superconductors.-  
**S.H.S.P. Samarappuli, Ph.D. Thesis, University of Peradeniya (1996).**  
Supervisors: M.A.K.L. Dissanayake, H.R. Ott and O.A. Ileperuma.
  5. Synthesis and Characterization of LISICON type ionic and mixed conductors based on  $\text{Li}_4\text{XO}_4$ : X=Si, Ti, Ge.  
**H.H. Sumathipala, Ph.D. Thesis, University of Peradeniya(1996)**  
Supervisors: M.A.K.L. Dissanayake and A.R. West
  6. Electrical properties of tellurium oxide based glasses  
**G.D.L.K. Jayasinghe, Ph.D. Thesis, University of Peradeniya (1996).**  
Supervisors: M.A.K.L. Dissanayake and J.L. Souquet
  7. Synthesis, characterization and electrical properties of some solid polymer electrolytes based on poly(ethelene oxide), PEO  
**L.R.A.K. Bandara, Ph.D. Thesis, PGIS/University of Peradeniya (2000)**  
Supervisors: M.A.K.L. Dissanayake and B.-E. Mellander
  8. Solid Polymer Electrolytes based on Polyacrylonitrile (PAN) and organically modified ceramics (Ormocers)  
**Ms. G.A.Kumudu S. Perera, Ph.D. Thesis, PGIS/University of Peradeniya (2000)**  
Supervisors: M.A.K.L. Dissanayake, P.W.S.K. Bandaranayake, Prof. Steen Skaarup and Dr. Keld West.
  8. Electrical Properties of PAN based and PPG based polymer electrolytes  
**W.A. Samantha, M.Phil. Thesis, PGIS/University of Peradeniya (2001)**  
Supervisors: M.A.K.L. Dissanayake, and Prof. B.-E. Mellander
  9. Study of Electrical Conductivity and Dielectric Relaxation of PEO Based Composite Polymer Electrolytes and PAN Based Polymer Electrolytes  
**P.A.R.D. Jayathilaka, M.Phil. Thesis, PGIS/University of Peradeniya (2003)**  
Supervisors: M.A.K.L. Dissanayake and B-E. Mellander
  10. Study of Thermal and Electrical Properties of Some Polymer Electrolytes Based on PEO and PAN and Some Intermediate Temperature Solid Oxide Fuel Cell Materials Based on Gadolinia Doped Ceria  
**R.S.P. Bokalawela, M.Phil. Thesis, PGIS/University of Peradeniya (2004).**  
Supervisors: M.A.K.L. Dissanayake, B-E. Mellander, P.W.S.K. bandaranayake
  11. Effect of nano size alumina and titania fillers on ionic conductivity of some polymer electrolytes.  
**K. Vignarooban, M.Phil. Thesis PGIS/University of Peradeniya (2007).**
  12. Synthesis and characterization of some PEO-based, nano-composite polymer electrolytes.  
**H.M.J.C. Pitawala, M.Phil. Thesis PGIS/University of Peradeniya (2008).**
  13. T.M.W.J. Bandara, Development of novel polymeric materials for Photo-electrochemical solar cells based (**Ph.D. 2010**, PGIS, University of Peradeniya).

In addition, **Seven** M.Sc. (Science Education- Physics Education) Research Projects were supervised by me during 2000-2005.

**Currently (2012) I am supervising six M.Phil./Ph.D. students at the IFS.**

**AWARDS:**

**CVCD (Committee of Vice Chancellors and Directors) Award for the Most Outstanding Researcher, Physical Sciences, Senior Researcher Category-2010: Awarded by H.E. the President on 16<sup>th</sup> December 2010.**

**Awarded the Sri Lanka National Award “*Vidya Nidhi*” by Her Excellency the President of Sri Lanka in October 2005 in recognition of the scientific achievements and contribution to national development in the area of science, scientific research and science education.**

**Merit Award for Scientific Research awarded by the National Science Foundation, Sri Lanka (Former Natural Resources, Energy and Science Authority of Sri Lanka NARESA) on the Project " Study of Solid Electrolytes and Cathode Materials for Solid State Electrochemical Cells", December, 1993.**

**Merit Award for Scientific Research awarded by the National Science Foundation, Sri Lanka on the Project " Study of Electroactive Polymers: Solid Polymer Electrolytes and Conducting Polymers” 2007.**

Supervised the **undergraduate research project adjudged the best** at University of Peradeniya annual research sessions of in 1999.

Received the Commendable presentation certificate under Physical Sciences at Peradeniya University Annual Research Sessions, 2002.

Two of our research papers have been selected as **TOP 25 Hottest Articles** by *Science Direct* in 2004. (*Please see the list of publication, Papers no. 53 and 55*)

**ADMINISTRATIVE EXPERIENCE**

Director, Postgraduate Institute of Science, University of Peradeniya (2003-2008)

Chairman, Board of Study in Science education, PGIS (1998-2007)

Head , Department of Physics, University of Peradeniya, Peradeniya (2000-2001)

Head, Department of Physics, University of Peradeniya, Peradeniya (1989 – 1992)

Acting Dean, Faculty of Science, University of Peradeniya (1-30 April 2000)



## EDITORIAL WORK

1. **Solid State Physics-1: Proc. First Int. Symp. on Solid State Physics, Kandy, Sri Lanka**, April, 1987..ed. M.A.K.L.Dissanayake, R.Attele and K.Tennakone, **Nova Science Publishers, New York, USA (1989) ISBN 0-941743-66-7**: 325 pages.
2. **Solid State Physics-2 : Proc. Second Int. Symp. Solid State Physics, Kandy, Sri Lanka**, May 1989; ed. M.A.K.L.Dissanayake, K.Tennakone and O.A.Ileperuma, **Nova Science Publishers, New York, USA (1992) ISBN 1-56072-030-1**: 320 pages.
3. **Solid State Ionics: New Developments : Proc. 5<sup>th</sup> Asian Conf. Solid State Ionics, Kandy, Sri Lanka**, April, 1996.  
Ed. B.V.R. Chowdari, M.A.K.L.Dissanayake, and M.A. Careem, **World Scientific, Singapore (1996)**
4. **Solid State Ionics: Advanced Materials for Emerging Technologies : Proc. 10<sup>th</sup> Asian Conf. On Solid State Ionics, Kandy Sri Lanka**, 12-16 June 2006.  
Ed. B.V.R. Chowdari, M.A. Careem, M.A.K.L.Dissanayake, R.M.G. Rajapakse and V.A. Seneviratne, **World Scientific, Singapore (2006)**
5. **Proc. IPPS Felicitation Symposium**, 10-11 January 2011, Peradeniya Sri Lanka  
Ed: M.A.K.L. Dissanayake, M.A. Careem, T. Ariyaratne, R.V. Coorey
6. **Proc. Solar Asia 2011 International Conference**, Institute of Fundamental Studies, Kandy, Sri Lanka , 28-30 July 2011;  
Ed: M.A.K.L. Dissanayake, I.M. Dharmadasa, R. Weerasooriya, G.K.R. senadeera, J.M.S. Bandara

*Please see CV Part II for a complete listing of Research Publications*

## SCIENTIFIC ACHIEVEMENTS :

**Professor M.A.K.L.Dissanayake**

Professor M.A.K.L. Dissanayake was the Professor of Solid State Physics and Senior Professor at University of Peradeniya until he retired on 30<sup>th</sup> September 2010. He obtained his Ph.D. in 1977 from Indiana University, Bloomington, Indiana, USA specializing in Experimental Solid State Physics, Optical Properties of Solids and returned to Peradeniya in 1977 as a Lecturer in Physics. At the time, there was no research activity in Solid State Physics at Peradeniya. Professor Dissanayake made a significant contribution to revise the Physics curricula at B.Sc. General and Special Degree levels at Peradeniya during late 70's. In early 80's he initiated a few research projects at the Department of Physics along with his colleagues.

After spending a year at Chalmers University of Technology, Sweden, in 1984/85, working on Solid Electrolyte materials, he returned to Peradeniya and took a keen interest to develop research and post-graduate training activities at Peradeniya. He played a leading role in initiating the solid state ionics research project and post-graduate courses during the 1985-1992 period. He was largely responsible for the receipt of major research equipment and training fellowships for post-graduate students from the International Programmes for Physical Sciences, Uppsala University, Sweden. Because of his unique experience in building up research activities, he was invited to deliver a special keynote lecture on "Starting Physics Research from Scratch" at the 8th European Physical Society Satellite Meeting on Physics and Development held in Holland in September, 1992. Professor Dissanayake has been able to establish many important international scientific contacts which enabled the solid state ionics research project to reach

international standard . Many research papers based on work entirely done at Peradeniya have been published in international journals. Several Ph.D.s, M. Phil.s and M.Sc degrees have been awarded as a part of a sandwich post-graduate training program with Sweden and the first ever Ph.D.in Physics to be awarded by a Sri Lankan University was supervised by Professor Dissanayake and his colleague Prof. M.A.Careem. This was a significant achievement for Peradeniya. In 1992, upon the recommendation by an international panel of experts, the European Economic Community awarded Professor Dissanayake a research grant worth over Rs.6.5 million for a research project on new solid state ionic materials, to be carried out jointly by the universities of Peradeniya, Aberdeen, UK and INPG, Grenoble, France. Professor Dissanayake is the Principal Investigator for Peradeniya for this project which has resulted important research findings on novel solid state ionic materials.

Professor Dissanayake was a Visiting Research Fellow at the Institute of Fundamental Studies, Kandy during 1987-1992 period where he developed experimental facilities from scratch for carrying out research on high temperature superconductors. This research work and frequent seminars to school students and teachers have generated lot of enthusiasm on Superconductivity which has become one of the front line research areas world wide. Within a short time the IFS group was able to publish several important research papers in international journals, to hold three international symposia on Solid State Physics in 1987, 1989 and 1991, and to train post-graduate students including a Ph.D. Professor Dissanayake was the Chairman of the Organizing Committee of these international symposia. In recognition of his capabilities in organizing and coordinating scientific conferences, Professor Dissanayake was entrusted by the Asian Society for Solid State Ionics, based in Singapore to hold the fifth bi-annual Asian Conference on Solid State Ionics in Sri Lanka in 1996.

Professor Dissanayake has participated in many international research conferences on Solid State Ionics, chairing sessions, delivering invited lectures, and presenting research papers on work entirely carried out at Peradeniya. As an Associate of the International Centre for Theoretical Physics (ICTP), Trieste, Italy he has also participated in many important scientific conferences and colleges at Trieste. Professor Dissanayake has published about 150 research publications and communications, out of which about 50 are in internationally refereed journals.

Professor Dissanayake has edited three volumes of Proceedings of the international Symposia on Solid State Physics held in Kandy in 1987, 1989 and 1991 out of which two have already been published by Nova Science Publishers, USA. He has edited the proceedings of the 5<sup>th</sup> Asian Solid State Ionics Conference held in Kandy, Sri Lanka in 1996 which has been published by World Scientific Ltd., Singapore. He is currently the Editor in Chief of the Ceylon Journal of Science-Physical Sciences, an annual publication of University of Peradeniya Peradeniya. Professor Dissanayake is also a member of the editorial board of Asia Pacific Physics News, a journal published by the Association of Physical Societies in the Asia-Pacific region in collaboration with UNESCO.

Professor Dissanayake's research interests covers several different areas of solid state Physics and Physics Education. These include, solid state ionic materials and solid state batteries, optical properties of solids, photovoltaic semiconductors and high temperature superconductors. He has also contributed to administration as Head of the Department of Physics at University of Peradeniya for a three year period from 1989 to 1991 and as Acting Dean of the Faculty of Science on several occasions.

Professor Dissanayake has made a number of significant contributions to secondary education in Sri Lanka. He is the author of seven very popular text books in Physics written in sinhalese language for GCE advanced level students. These books are now widely used by the students and the teachers in advanced level classes. As an active member of the Science Education Unit of the Faculty of Science at Peradeniya he has participated actively in many workshops and science camps held through out the country for GCE advanced level students and teachers. He has also written many news paper articles in the local press aimed at generating scientific interest among school students and the general public.

Professor Dissanayake played a key role in the formulation and planning stage of the Postgraduate Institute of Science (PGIS) in 1996. He was the Director (2003-2008) and also the Chairman of the Board of Study in Science Education (2000-2008) of this newly established national institute located at Peradeniya. As the Chairman of the Board of Study in Science Education of PGIS, he is responsible for initiating and developing a very successful M.Sc. (Science Education) program for training G.C.E. Advanced Level (High School) Physics teachers. He has also been successful in attracting funds to develop a novel program for training university lecturers and high school Physics teachers in *interactive computer-based Physics teaching* in Sri Lanka. One national training workshop (2000) and one international training workshop (2002) has already been organized under this program. As the Director of the PGIS, he initiated several important M.Sc. programmes. Among them are the GIS and Remote Sensing, Disaster Management, Nanoscience and Nanotechnology and Medical Microbiology.

Professor Dissanayake was a member of the Steering Committee on Physical, Engineering and Mathematical Sciences of NSF during 1992-1997. He was also a member of the Editorial Board of the Journal of the National Science Foundation during 1999-2001. He was a member of the Standing Committee on Science of the University Grants Commission since 1994.

Professor Dissanayake was appointed by Her Excellency the President of Sri Lanka as a member and the Convener of the Presidential Task Force on Integrated R&D in Science and Technology for the govt. of Sri Lanka in 1997-2000. He is also a member of the UNESCO National Commission, Sri Lanka and a member of the Standing Committee on University Education of the National Education Commission (NEC). He is the National Point of Contact (NPC) of the Asian Physics Education Network (APEN) affiliated to UNESCO, Jakarta.

During 2003-2008, Prof. Dissanayake has actively participated in promoting Physics Education by associating with Asian Physics Education Network (ASPEN). He has participated in several ASPEN workshops overseas and has organized two successful workshops in Sri Lanka on Interactive Methods of Physics Teaching. In recognition of his contributions to Physics Education in Sri Lanka and his interest and devotion in promoting Physics Educational reforms in the Asian region, he was elected unanimously as the Chairman of ASPEN at the 4<sup>th</sup> ASPEN General Assembly held in Sri Lanka in December 2002 for a five year period. During his Chairmanship, he organized and conducted several Physics Education workshops in Sri Lanka, Japan, Pakistan, and Vietnam. He is also an Associate Member of the International Commission on Physics Education (ICPE) affiliated to IUPAP.

**In appreciation of the services rendered for the development of scientific research and science education in Sri Lanka, Professor Dissanayake was awarded the Sri Lanka National Award “Vidya Nidhi” by Her Excellency the President of Sri Lanka in October 2005.**

**Professor Dissanayake received the CVCD (Committee of Vice Chancellors and Directors) Award for the Most Outstanding Researcher, Physical Sciences, Senior Researcher Category-2010: Awarded by H.E. the President on 16<sup>th</sup> December 2010.**

**After nearly 40 years of dedicated service and notable contributions to teaching, research and administration at university and national level, Prof. Lakshman Dissanayake retired from university service on 30<sup>th</sup> September 2010. He was awarded the Emeritus Professorship by University of Peradeniya in 2011.**

**Currently Professor Dissanayake is attached to the Institute of Fundamental Studies, Kandy as Research Professor and Team Leader of the Condensed Matter Physics and Solid State Chemistry Programmes.**