



**Department of Chemistry**  
**Faculty of Science / University of Peradeniya**



**Prof. A.D.L. Chandani Perera**

*B.Sc. (Perad.), M.Sc., Ph.D. (TIT, Japan)*

**Professor and Chair of Physical Chemistry**

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**Higher Education Qualifications**

🎓 **PhD**

Tokyo Institute of Technology  
Japan  
(1990)

🎓 **MSc**

Tokyo Institute of Technology  
japan  
(1987)

🎓 **BSc**

University of Peradeniya  
Sri Lanka  
(1981)

## Awards, Scholarships, Memberships & Fellowships



Member/Institute of Chemistry, Ceylon



Member/SLAAS



Member/Sri Lanka Association for the Advancement of Science



Young Scientist Award (TWAS/NAERSA)



The President's Awards 2015



National Academy of Science of Sri Lanka/Fellow

## Positions Held



Head/Department of Chemistry- (2013 - 2015)



Chairperson/Faculty Research Committee- (2007 - 2010)







Chairperson/Board of Study in Science Education (PGIS)- (2007 - 2015)



President/Alumni Association of University of Peradeniya (AAUP)- (2009 - 2011)

## My Teachings

-  CH101: Principals of Chemistry I
-  CH238: Physical Chemistry Laboratory I
-  CH330: Advanced Physical Chemistry I
-  CH331: Physical Chemistry II

## Research Interests (Research Fields/ Projects)





Carbohydrate liquid crystals; Synthesis of carbohydrate liquid crystals for use as liquid crystals and surfactants and applications in drug delivery and in cosmetic industry.

Ferroelectric and Antiferroelectric liquid crystals; Study of new subphases in ferroelectric and Antiferroelectric liquid crystals.

Application of low-cost, naturally available waste material, coconut coir dust, for desalination applications, removal of hardness from natural hard water, removal of fluoride from water etc.

Chemical Education

## Ongoing Research and Projects

-  **Microemulsions and Pickering emulsions for drug delivery**
-  **Lyotropic liquid crystals as permeation enhancers in transdermal drug delivery**
-  **Subphases in ferroelectric and antiferroelectric liquid crystals**
-  **Activated coconut coir for water purification**

## Key Publications



Jpn. J. Appl. Phys. - (1989)

Novel Phase Exhibiting the Tritable Switching



Liq. Crys. - (1999)

Effect of Alignment Layer on V-shaped Switching in a Chiral Smectic Liquid Crystal.

## Conferences



**Training Seminar on Nanotechnology and its Application**

**HELD AT :** Institute of Chemistry - (2007)

**TOPIC :** "Nanotechnology: Liquid crystals"



**National Conference on Advanced Materials for Emerging Technologies (NCAMET)**

**TOPIC :** "Development of materials for Smectic Liquid Crystal Displays"



**Science Scene (Noble Prize Winners), BMICH**

**HELD AT :** Institute of Chemistry - (1999)

**TOPIC :** Public Lecture on "Recent trends in liquid crystal display technology"  
Demonstrated Liquid Crystal Display in 3-days exhibition at Sri Lanka

## My Publications

Please goto the website.

<https://sci.pdn.ac.lk/chemistry/staff/Chandani-Perera>