

## CRRICULUM –VITAE

**Name:** Walpalage Shantha

**Address:** 301, Dippitigoda, Kelaniya, Sri Lanka

**Contact details (email / home page / institution / home etc.):**

Email: shanthaw@uom.ac.lk  
Telephone: Office: 0094-11-2640341  
Home: 0094-11-2947998  
Mobile No: 0714128099

**Academic Qualifications:**

- B.Sc. Engineering (Moratuwa)-1991
- Ph.D. (East London)-2000

**Awards:**

- President's Award for Scientific Publication –Sri Lanka- 2007
- Merit Award- Significant contribution made towards the development and growth of polymer industry of Sri Lanka-The Plastic & Rubber Institute of Sri Lanka-2011
- Award of Excellence in Recognition of the Outstanding Research Performances, University of Moratuwa, Sri Lanka
  - for the 3 years ending 31<sup>st</sup> December 2011
  - for the 3 years ending 31<sup>st</sup> December 2012
  - for the 3 years ending 31<sup>st</sup> December 2013
  - for the 3 years ending 31<sup>st</sup> December 2014
  - for the 3 years ending 31<sup>st</sup> December 2015
- National Research Council Merit Award for Scientific Publication -Sri Lanka-2014

**Professional Affiliations:**

- Member of Institute of Engineers (M-5767), Sri Lanka
- Member of Plastic and Rubber Institute, Sri Lanka

**Internal Activities:**

- Former Director, UOM-SIL Rubber Product & Process Development Incubator
- President of Chemical Engineering Society

**External Activities (National / International)**

- **Visiting lecturer:**
  - M.Sc. in Polymer Technology- University of Sri Jayewardenepura, Sri Lanka,
  - M.Sc. in Food Technology - University of Sri Jayewardenepura, Sri Lanka,
  - Graduateship in Rubber Technology-Plastic and Rubber Institute, Sri Lanka
- **Member / Committee etc of specific organizations;**
  - Member of National Industrial Training Advisory Committee for Rubber and Plastics Industry Occupation (2002-2005), National Apprentice and Industrial Training Authority.

- Member of Sub-committee of Institute-Industry Partnership -Polymer Science & Technology (2003)- Science and Technology Personnel Development Project
  - Member of Executive Committee (from 2006-2011), The Plastic and Rubber Institute, Sri Lanka
  - Member of Curriculum Development Committee of Graduateship in Rubber Technology (2007)-The Rubber & Plastic Institute of Sri Lanka
  - Member of Consultative Committee on Equipment Requirement for the Sri Lanka Institute of Nanotechnology(2007), National Science Foundation Sri Lanka
  - Member of National Committee on Engineering and Manufacturing (2012-2013), National Science Foundation
  - Chairman, Educational Development Committee, Plastic & Rubber Institute, Sri Lanka 2016- to date
- **Consultancy**
    - Group Consultant- ATG Intelligent Glove Solutions, Sri Lanka, From 1<sup>st</sup> October 2012 to date
    - Consultant- Phoenix Industries Ltd, Welisara, From 1<sup>st</sup> December 2013 to 31<sup>st</sup> July 2014.
    - Consultant- Plastics to Fuel Conversion Project- Polypto Lanka, From 2009-2015.
    - Consultant- Samson compounds, Galle- From 1<sup>st</sup> October 2012 to 31<sup>st</sup> July 2014.
  - **Consultancy on Design work**
    - Industrial scale biofilter, Ceylon Tobacco Company-2007
    - Conceptual design for abatement of oil contamination, Ceylon Petroleum Storage Terminals, Kolonnawa-2008
    - Vacuum distillation plant to purify rolling oil, ACME Printing & Packaging Ltd-2009
    - Pilot plant for plastics to Fuel conversion, Central Environmental Authority-2009/2010
    - Semi-commercial plant for plastics to Fuel conversion, Polypto Lanka- 2011-2012

#### **Research Supervision (M.Phil. and Ph.D. degrees):**

I have already supervised more than 20 postgraduate students who had successfully completed their PhD, M.Phil. and M.Sc. degrees. Name of the titles of Ph.D and M.Phil thesis are given below.

- A study on use of polypropylene(PP) and PP composites in the manufacture of castor wheels and their effect on processing, dynamics and static characteristics-Ph.D. Research-2015
- Reinforcing of natural rubber latex film with fine particles fillers-Ph.D. Research-2014
- Natural Rubber Latex Nanocomposites; Effect of Montmorillonite clay structure on reinforcement and extractable proteins-M.Phil. Research-2014
- The Development of Rubber-Thermoplastics Blends from ground tyre rubber and waste polypropylene-Ph.D. Research-2009

#### **Research Publications:**

I already have published more than 39 publications including 10 index journal articles, 2 other journal articles and 15 conference presentations (published as full papers). My index Journal publications are given below.

1. Abeywardena, S.B., Perera, S., de Silva, K.N., **Walpalage, S.** and Somaratne, M.C.W., 2017. Mimicking elephant mud bathing to produce wettable polyester. *Materials Letters*, Volume 205, 15 October 2017, Pages 90–93.DOI: 10.1016/j.matlet.2017.06.062
2. Jayaraj, S., Egodage, S.M. and **Walpalage, S.**, 2017. Incorporation of nanoclay into field latex to develop nanoclay filled dry rubber compounds. *Journal of the National Science Foundation of Sri Lanka*, 45(2), pp.121–132.DOI: 10.4038/jnsfsr.v45i2.8178
3. Somaratne, M.C.W., Liyanage, N.M.V.K. and Walpalage, S., 2014. Surface modification of silica with a hydrophilic polymer and its influence on reinforcement of natural rubber latex.*Journal of the National Science Foundation of Sri Lanka*, 42(4), pp 351-360.DOI: 10.4038/jnsfsr.v42i4.7734

4. Somaratne, M., Liyanage, N.M. and **Walpalage, S.**, 2014. Contribution of hydrogen and/or covalent bonds on reinforcement of natural rubber latex films with surface modified silica. *Journal of Applied Polymer Science*, 131(12).DOI: 10.1002/app.40380
5. Amarasiri, A., Ratnayake, U.N., De Silva, U.K., **Walpalage, S.** and Siriwardene, S., 2013. Natural rubber latex-clay nanocomposite: use of montmorillonite clay as an alternative for conventional CaCO<sub>3</sub>. *Journal of the National Science Foundation of Sri Lanka*, 41(4).293-302.DOI: 10.4038/jnsfsr.v41i4.6258
6. Egodage, S.M., Harper, J.F. and **Walpalage, S.**, 2012. Effect of maleimide curing on mechanical properties of ground tyre rubber/waste polypropylene blends.*Plastics, Rubber and Composites*, 41(8), pp.332-340.DOI: 10.1179/1743289811Y.0000000042
7. Egodage, S.M., Harper, J.F. and **Walpalage, S.**, 2009. The development of rubber-thermoplastic blends from ground tyre rubber and waste polypropylene. *Journal of the National Science Foundation of Sri Lanka*, 37(2), pp 117-123.DOI :10.4038/jnsfsr.v37i2.1067
8. Egodage, S.M., Harper, J.F. and Walpalage, S., 2009. Ground Tyre Rubber/Waste Polypropylene Blends-Effect of Composition on Mechanical Properties. *Progress in rubber, plastics and recycling technology*, 25(4), p.213-231. ISSN:1350-9462
9. **Walpalage, S.**, Ganga, I. and Silva, K.M.D., 2008. Development of correlation between potassium hydroxide number and conductivity of concentrated natural rubber latex. *Journal of applied polymer science*, 107(2), pp.1066-1070.DOI: 10.1002/app.27060
10. Silva K.M.D. and **Walpalage S.**, Effect of added ammonium laurate soap on natural rubber latex, *Journal of Rubber Research*,12(2) 59-70.ISSN: 1511-1768

#### **Patents:**

##### **Local:**

1. A method for reinforcing natural rubber latex products by incorporating modified silica dispersions, No. 17447, 8<sup>th</sup> November 2013.  
Inventors: S. Walpalage N.M.V.K. Liyanage, M.C.W. Somarathne

##### **International Patents:**

1. Pervaporation of Ethanol/water mixtures, GB2359814B-5<sup>th</sup> September 2001.  
Inventors: Malhotra VirenderNath, Walpalage Shantha
2. Composite membrane comprising natural rubber latex and hydrophilic colloid layers- GB 2360004- 12<sup>th</sup> September 2001  
Inventors: Malhotra VirenderNath, Walpalage Shantha

#### **Industrial research and Design work**

I have actively engaged in developing the relationship between the University and industry. Several of industrial projects that I carried out needed extensive research work and some of them up as unique creative designs. The following two projects highlight my contribution to the industry.

1. Design, commissioning and evaluation of the scaling up of plastic-fuel conversion process from laboratory scale to pilot scale and then to demonstration plant of semi-commercial scale.
2. Design, commissioning and evaluation of industrial odour abatement system to Green Leaf Threshing Plant, Ceylon Tobacco Company (CTC), Kandy. To our knowledge, this is the first ever industrial scale bio-filter in Sri Lanka.

#### **References:**

Prof. Ajith De Alwis  
Professor/ Department of Chemical & Process Engineering

Prof. (Mrs) Padma Amarasinghe  
Professor/ Department of Chemical & Process Engineering

University of Moratuwa, Sri Lanka  
Te: +94 11 2650301 Email: ajith@uom.lk

University of Moratuwa, Sri Lanka  
Te: +94 11 2650184 Email: padma@uom.lk