

Curriculum vitae
2016

Mohamed Cassim Mohamed
Iqbal

Personal Data

Education

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Publications

Refereed journals

Proceedings of Conferences

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Service to the Institute

Personal data

Name : Iqbal, M.C.M.
Other names : Mohamed Cassim Mohamed
Present Employment : Senior Research Fellow, NIFS

Official address:
Plant Biology
Institute of Fundamental Studies
Hantana Road, Kandy. Sri Lanka

Private address:
53/5A Park Lane,
Rajagirya.

Tel: 094-81-2232002
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Tel: 011 2883239
email: mcmif2003@yahoo.com

Sex : Male
Place and date of birth : Kandy, 01 Dec 1956
Citizenship : Sri Lanka
Marital status : Married, two children
Language proficiency : English, German, Sinhala, Tamil

Education

Primary, Secondary : Kingswood College, Kandy

Academic

April 1976-Dec 1980 : B.Sc (Agric.), Honours degree
University of Peradeniya,
Sri Lanka.

Oct 1984 – Oct 1987 : Dipl. Ing. -Agr. (ETH)
Department of Agriculture,
Swiss Federal Institute of Technology (ETH)
Zürich, Switzerland.

Feb 1990-July 1993 : Ph.D. in Plant Breeding
Institute of Agronomy and Plant Breeding,
Georg-August-University,
Göttingen, Germany.

Professional employment

Teaching

Jan 1981 – July 1983 : Assistant-Lecturer,
Department of Agronomy,
Eastern University, Sri Lanka, Chenkaladi.

Jan 1988 – Dec 1989 : Senior Lecturer,
Department of Agronomy,
Eastern University, Sri Lanka, Chenkaladi.

Research

- July 1983 – Oct 1984 : Research Assistant,
Institute of Plant Sciences,
ETH Zürich,
Switzerland.
- 15 Nov 1993 – : Visiting Scientist at the Indonesian,
15 Feb 1994 : Oil Palm Research Institute, Medan
on the Indonesia – Germany,
Biotechnology program.
- March 1994 – Dec 1994 : Research Fellow
Plant Biotechnology
Institute of Fundamental Studies,
Hantana Road Kandy,
Sri Lanka.
- April 1996 – July 1996 : DAAD Research Fellowship at the Institute of
Agronomy and Plant Breeding,
University of Göttingen,
Germany.
- March 1997 – Sept 2002 : Research Fellow
October 2002 – 2014 : Senior Research Fellow
2014 to date : Associate Research Professor
Plant Biology
Institute of Fundamental Studies,
Hantana Rd., Kandy, Sri Lanka.

Scholarships and awards

- July 1983- Oct 1987: Swiss Federal Government scholarship for postgraduate studies at the Swiss Federal Institute of Technology (ETH), Zürich Switzerland.
- Jan 1990– July 1993: Rotary Foundation scholarship (Freedom from Hunger program), to read for a Ph.D degree at the University of Göttingen, Germany.
- April 1996–July1996: DAAD Research Fellowship at the Institute of Agronomy and Plant Breeding, University of Göttingen, Germany.
- Aug 2003–Jan2005: DAAD Research Fellowship at the Institute of Agronomy and Plant Breeding, University of Göttingen, Germany.
- 2000, 2002, 2003, 2004: Presidential Award for research publications in the Science
2007, 2013 Citation Index, Sri Lanka.

2011: NRC merit Award for Scientific Publications
Sept 2015– Nov 2015: DAAD Research Fellowship at the Dept. of Crop Science, University of Göttingen, Germany.

Research grants

1. National Science Foundation Grant no. RG/2004/BM/03

Title: Stress induced *in vitro* regeneration of indica rice (*Oryza sativa*)

Value Rs. 733,313.00

2. British Ecological Society

Title: Biodiversity, metallophytes and their conservation on a serpentinite site in Ussangoda, Sri Lanka.

Value: GBP 1,795.00

3. National Science Foundation Grant no. RG/2006/AG/04

Title: Differentiation of Sri Lankan mustard (*Brassica juncea*) varieties using AFLP markers and altering their fatty acid profile by intergeneric hybridization with *Brassica napus* (canola).

Value Rs. 997,120.00 (co-grantee)

4. National Science Foundation Grant no. RG/2006/EB/08

Title: Ecology of the Ussangoda serpentine flora

Value Rs. 1,538,450.00
Awarded in June 2007.

5. National Research Council Grant no. 2013-087

Title: Biosorbents for heavy metals and dyes

Value: Rs. 1,768,801.00

6. National Research Council Grant no. 2013-62 (Co-grantee)

Title: Floristics, heavy metal tolerance and phytomining potential of serpentine flora of Sri Lanka

Value: Rs. 4,100,000.00

7. National Research Council Grant no. TO 2014-04 (Co-grantee)

Target oriented multidisciplinary Research Grant: Comprehensive research proposal on an operational model to control dengue in Sri Lanka using multiple vector control intervention, new product development and community engagement

8. National Research Council Grant no. 2015-022 (Co-grantee)

Removal of nitrates and phosphates from drinking water using chemically and physically modified silicate materials.

9. National Research Council Grant no. (Co-grantee)

National Assignments

Report prepared for	Report on	Comment
National Science and Technology Commission of Sri Lanka (2008 - 2009)	1. Science and Technology Statistics and Indicators for S&T Institutions in Sri Lanka 2. Questionnaire for review of Institutions	This was adapted and is now used for the Review of Science and Technology institutions in Sri Lanka by the NASTEC
Climate Change Secretariat of the Ministry of Environment and Natural Resources (2009-2010)	1. Report on the Available methods and tools for Assessment of Vulnerability and Adaptation to Climate Change 2. Vulnerability and Adaptation to Climate Change in the Agriculture, Coastal sector, Water resources sector, and Health sectors 3. Vulnerability and Adaptation Assessment to Climate Change	A book chapter was written on ' <i>Impacts, Vulnerability and Adaptation to Climate Change in Sri Lanka</i> ', for Sri Lanka's Second National Communication on Climate Change (p. 59-95). Submitted to the UNFCCC. Published by: Climate Change Secretariat, Ministry of Environment and Natural Resources.

Publications

Published as thesis

IQBAL, M.C.M., 1987: Investigation of the performance of doubled haploid spring wheat in comparison to their corresponding breeding lines under field conditions. *M.Sc. thesis*. Swiss Federal Institute of Technology (ETH), Zurich.

IQBAL, M.C.M. 1993: Methodological improvements in microspore culture of *Brassica napus* L. *Ph.D thesis (Part I)*. Georg-August University, Göttingen.

IQBAL, M.C.M. 1993: Investigations on *in vitro* glucosinolate biosynthesis. *Ph.D thesis (Part II)*. Georg-August University, Göttingen.

Refereed journals

1. MÖLLERS, C., **M.C.M. IQBAL** and G. RÖBBELEN, 1994: Efficient diploidization of *Brassica napus* microspores by colchicine treatment to regenerate doubled haploid plants. *Euphytica* 75: 95-104, 1994.
2. **IQBAL, M.C.M.**, C. MÖLLERS, and G. RÖBBELEN, 1994: Increased embryogenesis after colchicine treatment of microspore cultures of *Brassica napus* L. *Journal of Plant Physiol.* 143: 222-226.
3. **IQBAL, M.C.M.**, G. RÖBBELEN and C. MÖLLERS, 1995. Biosynthesis of glucosinolates by microspore derived embryoids and plantlets *in vitro* of *Brassica napus* L. *Plant Science* 112: 107-115.
4. MÖLLERS, C., NEHLIN, L., GLIMELIUS, K. and **M.C.M. IQBAL**, 1999: Influence of *in vitro* conditions on glucosinolate composition of microspore-derived embryos of *Brassica napus*. *Physiologia Plantarum* 107: 441-446.
5. **IQBAL, M.C.M.** and C.MÖLLERS, 1999: Double haploids in *Brassica napus* L. breeding programs. *Pakistan Journal of Biological Sciences*, 2 (4): 1197-1202.
6. **IQBAL, M.C.M.**, S. MEIYALAGHAN, K.B. WIJESEKARA, and K.P. ABEYRATNE, 2001: Antifungal activity from water extracts of some common weeds in Sri Lanka. *Pakistan Journal of Biological Sciences*, 4 (7): 843-845.
7. **IQBAL, M.C.M.**, K.B. WIJESEKARA and R.B. HAPUKOTUWA 2001:Fruits in *Brugmansia x candida* Pers. *Ceylon Journal of Science (Bio.Sci)* 28:19-20.
8. **IQBAL, M.C.M.**, and K.B. WIJESEKARA 2002: Cells of the connective tissue differentiate and migrate into pollen sacs. *Naturwissenschaften* 89: 39-42.

9. **IQBAL, M.C.M.**, and K.B. WIJESEKARA 2002: Cytological aspects of pollen embryogenesis in anther culture of *Datura metel* L. Ceylon Journal of Science (Bio.Sci) 30: 89-98.
10. **IQBAL, M.C.M.** and C. MÖLLERS 2003: Uptake and distribution of sinigrin in microspore derived embryos of *Brassica napus* L. Journal of Plant physiology 160, 961-966.
11. **IQBAL, M.C.M.**, U.L.B. JAYASINGHE, H.M.T.B. HERATH, K.B. WIJESEKARA and Y. FUJIMOTO 2004: A fungistatic chromene from *Ageratum conyzoides*. Phytoparasitica 32(2): 119-126.
12. ZARNOWSKI, R, A, JAROMIN, M. CERTIK, T. CZABANY, J. FONTAINE, T. JAKUBIK, **M.C.M. IQBAL**, A. GRANDMOUGIN-FERJANI, A. KOZUBEK AND S.J. PIETR 2004: The oil of *Adenanthera pavonina* L. seeds and its emulsions. Zeitschrift für Naturforschung 59c, 321-326.
13. **IQBAL, M.C.M.**, S. R. WEERAKOON, and P.K.D. PIERIS 2006: Variability of fatty acid composition in interspecific hybrids of mustard *Brassica juncea* and *Brassica napus*. Ceylon Journal of Science, (Bio. Sci.) 35 (1):17-23.
14. NATH U.K., **IQBAL, M.C.M.** and MÖLLERS, C. 2007: Early, non-destructive selection of microspore derived embryo genotypes in oilseed rape (*Brassica napus* L.)by molecular markers and oil quality analysis. Molecular Breeding 19: 285-289.
15. **IQBAL, M.C.M.**, and K.B. WIJESEKARA 2007: A brief temperature pulse enhances the competency of microspores for androgenesis in *Datura metel*. Plant Cell, Tissue and Organ Culture 89: 141-149.
16. Wijesekara, T.P., M.K.A.S. Jayasena, M.N. Medagoda, **M.C.M. Iqbal**. 2006: Callusing and regeneration of three genotypes of *Oryza sativa* ssp. *indica* by 2,4 dichlorophenoxy acetic acid (2,4-D). Journal of the National Science Foundation 35(2): 139-141.
17. DISSANAYAKE, C. and **M.C.M. IQBAL** 2007. Sustainable use of *Cryptocoryne wendtii* de Wit and *Echinodorus cordifolius* in the aquaculture industry of Sri Lanka by micropropagation. Sri Lanka Journal of Aquatic Sciences 12: 89-101.
18. WIJESEKARA, T.P., **M.C.M. IQBAL** and D.C. BANDARA 2007. Plant regeneration *in vitro* by organogenesis on callus induced from mature embryos of three rice varieties (*Oryza sativa* ssp. *indica*). Tropical Agricultural Research 19: 25-35.
19. **M.C.M. IQBAL** (2008). Falsifiability of theories in the Biological Sciences. Ceylon Journal of Science, (Bio. Sci.) 36(2): 127-134.
20. H.A.S. WEERASINGHE and **M.C.M. IQBAL**. Plant diversity and soil characteristics of the Ussangoda serpentine site. Journal of the National Science Foundation **39** (4), 345-353.
21. **M.C.M. IQBAL**, S. R. WEERAKOON, H.D.N. GEETHANJALIE, P.K.D. PEIRIS and O.V.D.S.J. WEERASENA (2011). Inter-specific Hybrids between *Brassica juncea* x *Brassica napus* show an altered fatty acid profile. Crop and Pasture Science **62**, 390-395

22. Chathuranga, P.K.D., Priyantha N., Iqbal S.S., **Iqbal M.C.M.** (2012). Biosorption of Cr(III) and Cr(VI) from aqueous solution by *Cabomba caroliniana*: kinetic and equilibrium study. *Environmental Earth Sciences* **70**, 661-671.
23. Nalaka, G. D. A., Sivanathawerl, T., and **Iqbal, M. C. M.**(2013). Scaling aboveground biomass from small diameter trees. *Tropical Agriculture Research* **24**: 150-162.
24. Thayaparan, M.; Iqbal, S.S.; Chathuranga, P.K.D.; Iqbal, M.C.M. Rhizofiltration of Pb by *Azolla pinnata*. *International Journal of Environmental Sciences*. **2013**, 3(6), 1811 - 1821.
25. Wijesekara, K.B. and M.C.M. Iqbal (2013). Absence of meristems in androgenic embryos of *Datura metel*(L.) induces secondary embryogenesis in vitro. *Scientia Horticulturae* 164, 287-294.
26. Chathuranga P. K. D., Dissanayake D. M. R. E. A., Priyantha N, Iqbal S. S., Iqbal M. C. M. (2014). Biosorption and desorption of Pb(II) by *Hydrilla verticillata*. *Bioremediation* 18:192–203
27. H.M.D.A.K. Herath, D. C. Bandara, P.A. Weerasinghe, M.C.M. Iqbal, H.C.D. Wijayawardhana (2014). Effect of Cadmium on Growth Parameters and Plant Accumulation in Different Rice Varieties in Sri Lanka. *Tropical Agriculture Research*. 2014, 25 (4): 432-442
28. D.M.R.E.A. Dissanayake, P.K. DileepaChathuranga, P.I. Perera, M.C.M. Iqbal. Potential use of *Azolla pinnata* as a biosorbent for removal of aqueous lead(II). *International Journal of Earth Science and Engineering* (in press)
29. IQBAL, M.C.M. DISSANAYAKE, C.B. CKDU in Sri Lanka (2014). *Science* **344**, 6187, p. 981. 30 May 2014 (COMMENT)
30. A. W.W.M.B. MEDAWATTE, J. AMARASINGHE, **M. C.M. IQBAL**, S. M.W. RANWALA (2014). Restoration of a degraded dry forest using nurse trees at Dambulla, Sri Lanka. *Conservation Evidence* (2014) 11, 16-19
31. M.C.M. IQBAL, D.S.A. WIJESUNDERA and S. M.W. RANWALA. Climate Change, Invasive Alien Flora and concerns for their Management in Sri Lanka. *Ceylon Journal of Science* (2014) (Bio. Sci.). Accepted
32. P. K. D. Chathuranga, S. K. A. T. Dharmasena, N. Rajakaruna and M. C. M. Iqbal Growth and nickel uptake by serpentine and non-serpentine populations of *Fimbristylis ovata* (Cyperaceae) from Sri Lanka. *Australian Journal of Botany* (2015). 63(2) 128-133

33. M. Seneviratne, G. Seneviratne, H.M.S.P. Madawala, M.C.M. Iqbal, N. Rajakaruna, D.M.T.U. Bandara, M. Vithanage. A preliminary study of the role of bacterial-fungal co-inoculation on heavy metal phytotoxicity in serpentine soil. *Australian Journal of Botany* (2015). 63(4) 261-268
34. I. Herath, M. C. M. Iqbal, M. I. Al-Wabel, A. Abduljabbar, M. Ahmad, A. R. A. Usman, Y. Sik Ok, M. Vithanage. Bioenergy-derived waste biochar for reducing mobility, bioavailability, and phytotoxicity of chromium in anthropized tannery soil. *Journal of Soils and Sediments*. DOI 10.1007/s11368-015-1332-y
35. Dissanayake, D. M. R. E. A, Wijesinghe, W.M.K.E.H, Iqbal, S.S, Priyantha, H.M.D.N and Iqbal, M. C.M. Isotherm and kinetic study on Ni(II) and Pb(II) biosorption by the fern *Asplenium nidus* L.. *Ecological Engineering* (2016) 88: 237-241.
36. D. M. R. E. A. Dissanayake, D.M.R.E.A., Chathuranga, P. K. D., Perera, P. I., Vithanage, M, Iqbal, M. C. M. Modelling of Pb(II) adsorption by a fixed bed column. *Bioremediation* (in press) 2016.

Proceedings of conferences

1. **IQBAL, M.C.M.**, and C. MÖLLERS, 1991: Selection for low glucosinolate content of rapeseed in *Brassica napus* L. using haploid embryoids from microspore culture. Proc. of the GCIRC Congress, July 9-11 1991 in Saskatoon, Saskatchewan Canada. Vol 1, 187-190.
2. MÖLLERS, C., S. ALBRECHT and **M.C.M. IQBAL**, 1993: Early diploidisation of rapeseed microspores and possibilities for selection of fatty acids in embryoids. Ber. der 44 Arbeitstagung, 23-25 November 1993, BAL Gumpenstein, Austria.
3. **IQBAL, M.C.M.**, and U.L.B. JAYASINGHE, 2002. Antifungal activity in seeds of some selected Sri Lankan plants. Modern Fungicides and Antifungal compounds III. 13th International Reinhardsbrunn Symposium May 14th – 18th 2001. Ed. H.-W. Dehne, U. Gisi, K.H. Kuck, P.E. Russell and H. Lyr. Verlag T. Mann GmbH & Co.KG. Bonn, Germany
4. JAYASENA, M.K.A.S., **M.C.M. IQBAL**, and D.P.S.T.G. ATTANAYAKE. Early plantlet regeneration from five local indica rice genotypes (*Oryza sativa* L.). Proceedings of the 5th Agricultural Research Symposium, p. 17-23, 27-28 September 2005, Wayamba University of Sri Lanka.
5. WEERAKOON, S.R., S. SOMARATHNA, W.S.R. WIMALASURIYA and **M.C.M. IQBAL**. Phenotypic variation and the relationships among mustard (*Brassica juncea* L.) germplasm from Sri Lanka. The Open University of Sri Lanka, 2005, p. 67-73.

6. ABEYSINGHE, A.M.T.P. and **M.C.M. IQBAL**. Uptake and accumulation of Cadmium by *Brassica juncea* and *Ageratum conizoides*. Proceedings of the 6th Agricultural Research Symposium, p. 117-121, 22-23 November 2006, Wayamba University of Sri Lanka.
7. SOMARATHNA, S., S.R. WEERAKOON and **M.C.M. IQBAL**. Agro-Morphological characters in classification of mustard accessions (*Brassica juncea* L.) in Sri Lanka: A Classification Tree Approach. p. 77-80. Fourth Annual Academic Sessions, Open University of Sri Lanka, 28-29 June, 2007.
8. WEERAKOON, S.R. , **M.C.M. IQBAL**, S. SOMARATHNA, P.K.D. PIERIS, W.S.R. WIMALASURIYA. Delimitation of local mustard (*Brassica juncea*) germplasm in Sri Lanka and improvement of their nutritive quality. Proceedings of the 12th International Rapeseed Congress, Wuhan, China March 26-30, 2007. p. 75-78.
9. NATH, U.K., **M.C.M. IQBAL**, C.MÖLLERS. *In vitro* selection of microspore derived embryo genotypes based on molecular marker and oil quality analysis in oilseed rape (*Brassica napus* L.). Proceedings of the 12th International Rapeseed Congress, Wuhan, China March 26-30, 2007. p. 20-23.
10. Kumarathunge, M.D.P. and **Iqbal, M.C.M.** (2009). Biomass estimation in some dry zone forests in Sri Lanka from forest inventory data. Proceedings of the fourteenth International Forestry and Environmental Science Symposium, 2009. University of Sri Jayawardenapura. Sri Lanka. pp. 01.
11. Kumarathunge, M.D.P and **Iqbal, M.C.M.** (2010). Aboveground biomass estimation in Peak-Wilderness sanctuary – Sri Lanka. Third International Symposium on “New Horizons in Humanities & Sciences towards Sustainable Development” Sabaragamuwa University of Sri Lanka. August 2010
12. Madanayake, M.P., Gunatilake, J., Haji, A., **Iqbal, M.C.M.** (2010). A GIS Approach to Generating a Dengue Risk Map. MapAsia 2010, Kuala Lumpur, Malaysia in 26th to 28th July 2010’.
13. Madanayake, M.P., Gunatilake, J., Haji, A., Iqbal, M.C.M. (2010). Identifying socio-economic factors associated with dengue incidence. Proceedings of the Peradeniya University Research Sessions, Sri Lanka Vol. 15, 16 December 2010.
14. Chaturanga, P.K.D., Iqbal, S.S., **Iqbal, M.C.M.**, Priyantha, N. (2010) Removal of Chromium (III) by Non-living Biomass of *Cabomba spp.*, 16th Annual Scientific Sessions of Sri Lanka Association for Fisheries and Aquatic Resources (SLAFAR), 2010.
15. Nalaka, G.D.A. and **Iqbal M.C.M.** (2011). Species contribution to aboveground biomass (AGB) in tropical dry forests of Sri Lanka. *In YSF Day - Technical*

- Sessions*. Colombo, Sri Lanka, 27 January 2012. Colombo, Sri Lanka: Young Scientist Forum, National Science and Technology Commission. (Accepted).
16. Madanayake, M.P., Gunetilake, J., Haji, A., **Iqbal, M.C.M.**, An analysis of spatial distribution of dengue in the Mawanella MOH area, with the help of GIS technology. Fourth National Geography Conference – 2011. 11th – 12th March 2011. Geography Department. Sri Jayawardhanapura University, Sri Lanka.
 17. Nalaka G. D. A., Kumarathunage M. D. P., Panditha P. M., Bandara D. C. and, **Iqbal M. C. M.** (2011). Assisted natural regeneration and carbon sequestration in an arboretum. International Conference on the Impact of Climate Change on Agriculture. Mapalana, Sri Lanka. 20-21 December 2011. Faculty of Agriculture, University of Ruhuna.
 18. Nalaka, G.D.A. and **Iqbal M.C.M.** (2011). Species contribution to aboveground biomass (AGB) in tropical dry forests of Sri Lanka. In YSF Day - Technical Sessions. Colombo, Sri Lanka, 27 January 2012. Colombo, Sri Lanka: Young Scientist Forum, National Science and Technology Commission (accepted).
 19. Chaturanga, P.K.D., Iqbal, S.S., **Iqbal, M.C.M.**, Priyantha, N. Removal of aqueous chromium (III) by non-living *Cabomba caroliniana*. In: International Symposium on Water Quality and Human Health: Challenges ahead. 22nd – 23rd March, 2012, Peradeniya, Sri Lanka.
 20. **Iqbal M.C.M.** , Nalaka G. D. A., and Kumarathunage M. D. P., and Tree diversity in a tropical dry mixed evergreen forest plot in Sri Lanka. 17th Forestry and Environment Symposium, Sri Lanka. 16-17 November 2012, p. 26.
 21. Chaturanga P.K.D., Iqbal M.C.M., Priyantha N., Iqbal S.S. (2012). Removal of aqueous chromium(III) by non-living *Cabomba caroliniana*. In 5th International Congress of Environmental Research 22-24 November, Kuala Terengganu, Malaysia.
 22. Chaturanga P.K.D., Iqbal S.S., Iqbal M.C.M., Priyantha N.(2012). Biosorption of chromium(VI) from aqueous systems by non-living *Cabomba spp*. In 18th Annual Scientific Sessions of Sri Lanka Association for Fisheries and Aquatic Resources 17-18 May, 2012 Colombo.
 23. H.M.D.A.K. Herath, P.A. Weerasinghe, D.C. Bandara, M.C.M. Iqbal, H.C.D. Wijayawardhana. Effect of Cadmium on growth, uptake and accumulation in new improved and traditional rice (*Oryza sativa*) varieties in Sri Lanka. Third Annual Research Symposium 2013. Extended Abstracts, p.27-28. Rajarata University of Sri Lanka, Mihintale February 7, 2013.
 24. M.H.N. Mihiraj, Navaratne, **M.C.M. Iqbal**. Temporal changes in drought patterns in different agro-ecological regions in Sri Lanka. International Symposium on

- Agriculture and Environment – Research to meet Global Challenges. March 15, 2013, University of Ruhuna, Sri Lanka.
25. Qader, M.M., Thayaparan, M., Iqbal, S.S., and Iqbal, M.C.M. A preliminary study of remediation of chromium from tannery waste. Proceedings of the Annual Academic Sessions, Open University of Sri Lanka, Nawala, Sri Lanka 27-28 November 2013. p. 396-400.
 26. De Silva, Vivehananthan, V., **Iqbal, M.C.M.**, Srirathan, B. Heavy metal analysis to evaluate the quality of the neem (*Azadirachta indica*) leaf extract for waste water treatment.. Proceedings of the 13th Agricultural Research Symposium, 2014, Wayamba University of Sri Lanka.

Abstracts in proceedings of conferences: >50

Abstracts in International Conferences: 2015-2016

1. M. K. E. H. Wijesinghe, Awanthi Wathukarage, D. M. R. E. A. Dissanayake, M. C. M. Iqbal. Biosorption of Pb(II) using *Trigonospora obtusiloba* In 4th International Symposium on Water Quality and Human health: Challenges ahead, 2015, PGIS, Peradeniya
2. G. D. Tharangani Deepika, S.K. Gunathilake, M. C. M. Iqbal Decolourization of aqueous Crystal Violet dye by using phytoremediation with *Pistia stratiotes* In 15th Annual Research Sessions, 2015, Sabaragamuwa University of Sri Lanka
3. Awanthi Wathukarage, Tharangani deepika, M. C. M. Iqbal, Phytoremediation potential of water lettuce (*Pistia stratiotes*) to remove crystal violet dye in aqueous solution, In 20th International Forestry and Environment Symposium-2015, 16th - 17th October 2015, University of Sri Jayewardenpura, Nugegoda
4. Awanthi Wathukarage, M. C. M. Iqbal, H. M. D. N. Priyantha and Meththika Vithanage, Decolourization of crystal violet synthetic dye from aqueous solution by woody biochar, In Peradeniya University International Research Sessions, 5th - 6th November 2015, University of Peradeniya
5. Medawatte, W. W. M. B. A., Ranwala M. W. S., Iqbal, M. C. M. (2016). Effect of forest degradation on composition and structure of dry forest species in Sri Lanka. Conference on Sustainable Landscapes for People, Business, and Biodiversity. National University of Singapore, 29 June - 2 July 2016, Page 169.
6. Medawatte, W. W. M. B. A., Sudasingha, S. K., Iqbal, M. C. M. (2016). Potential spread of exotic tree species in Sri Lanka: a road side survey from seven agro-ecological regions. Conference on Sustainable Landscapes for People, Business, and Biodiversity, National University of Singapore, 29 June - 2 July 2016. Pages 53-54.

Books and Book Chapters

M.C.M. IQBAL (Editor). **A Guide for Beginners in Research**. Published by the Sri Lanka Association for the Advancement of Science (2014). ISBN: 978-955-9321-14-9

C. MÖLLERS and **M.C.M. IQBAL**. Doubled Haploids in Breeding Winter Oilseed Rape. In “**Advances in Haploid Production in Higher Plants**” Ed. Touraev, A., Forster, B.P. and Mohan Jain, S. p.161-170. Springer Science 2009 ISBN: 978-1-4020-8853-7

M.C.M. IQBAL. Impacts, Vulnerability and Adaptation to Climate Change in Sri Lanka. In: **Sri Lanka’s Second National Communication on Climate Change**. p. 59-95. Climate Change Secretariat, Ministry of Environment. 2011 ISBN: 978-955-0033-22-5

M.C.M. IQBAL. Science - the Pursuit of Knowledge. In: **A Guide for Beginners in Research**. Published by the Sri Lanka Association for the Advancement of Science (2014).ISBN: 978-955-9321-14-9

M.C.M. IQBAL. The Laboratory Notebook and your Supervisor. In: **A Guide for Beginners in Research**. Published by the Sri Lanka Association for the Advancement of Science (2014).ISBN: 978-955-9321-14-9

Service to the Profession

2004 Senior Consultant to the Dept. of Botany, Open University of Sri Lanka, Nawala.

2005 Evaluation of Research Grant for University of Peradeniya

2008 Consultant to the National Science and Technology Commission of Sri Lanka, to prepare a procedure for *Evaluation of the Status of Science and Technology in Sri Lanka*.

2009 – 2011 National Consultant to the Ministry of Environment and Natural Resources, to prepare the chapter on ‘*Impacts, Vulnerability and Adaptation*’ for the Second National Communication on Climate Change for the UNFCCC.

2009 – to present. As Chairman of the Popham – IFS Dambulla Arboretum Committee, contributed to organise school education programmes and to attract funds for the upkeep and management of the Arboretum.

2014 Preparation of a dossier for the National Science Foundation to apply for Geopark status for the Ussangoda Serpentine site to the UNESCO (jointly with Prof. G.W.A.R. Fernando, OUSL)

Served on the Editorial Board of the *Ceylon Journal of Science*

Manuscripts reviewed for international journals:

Plant Breeding, Catena, Australian Journal of Botany, Desalination and Water Treatment, Bioremediation Journal

Manuscripts reviewed for national journals:

Journal of the National Science Foundation of Sri Lanka, Ceylon Journal of Science, Tropical Agriculture Research

Other reviews:

Evaluation of abstracts submitted to the 58th Annual Sessions of the SLAAS

Reviewing of manuscripts for the 21st Annual Congress of the PGIA

Evaluation of abstracts submitted to the Annual Sessions of the Open University of Sri Lanka

Reviewing of manuscript for the Annual Symposium of the Dept. of Agriculture

Invited Talks

Young Researchers Forum, PGIS, University of Peradeniya, 2006

Guest Lecture, Open University of Sri Lanka, 2007

Resource person for workshop on Promoting Scientific Research, Staff Development Centre Sabaragamuwa University of Sri Lanka, 2009

Keynote speaker for the technical session of the Research Symposium 2012 of the Uva Wellessa University of Sri Lanka.

World Environment Day 2013. Presentation at the National Science Foundation

Science Dissemination

Conducted lecture and demonstrations for School Science program, IFS, 2004.

Contributed to the production of a Video program for the Dept. of Botany, Open University of Sri Lanka, Nawala. 2005.

Conducted demonstrations for IFS-School Science program at the Popham – IFS Arboretum in Dambulla, 2012.

Conducted demonstrations for IFS-School Science program at the Popham – IFS Arboretum in Dambulla, 2013.

Conducted lecture and demonstrations for School Science program, IFS, 2014.

Mentoring and Supervision

Postgraduate degrees supervised

- Wijesekara, K.B. *Study of microsporogenesis and haploid induction in selected species of Theaceae and Solanaceae.*
M.Phil. degree (2002): Awarded by the University of Peradeniya, Sri Lanka.
- Dissanayake, W.A.D.C.P. *Tissue culture propagation of ornamental aquatic plants, Cryptocorine wendtii (wendt brown) and Echinodorus cordifolius (marble queen).*
M.Sc Degree (2004): Awarded by the University of Kelaniya, Sri Lanka.
- Shubajini, R. *Uptake of Cadmium and Nickel by selected plant species under laboratory conditions.*
M.Sc Degree: Postgraduate institute of Science, University of Peradeniya.
- C.R. de Silva *Distribution of heavy metals on the Ussangoda serpentinite site.*
M.Sc Degree (2008): Postgraduate Institute of Science, University of Peradeniya
- M.Thayaparan *Phytoremediation of toxic heavy metals in a polluted aquatic environment*
M.Phil. Degree (2009): Awarded by the Open University of Sri Lanka, Nawala, Sri Lanka.
- M. Madannayake *Dengue incidence in Mawanella area – a case study*
M.Sc Degree (2011): Postgraduate Institute of Science, University of Peradeniya
- H.A.S. Weerasinghe *Edaphic characteristics at the Ussangoda Serpentinite Deposit*
M.Phil Degree (2011): Postgraduate Institute of Science, University of Peradeniya
- D.M.R.E.A. Dissanayake *Removal of Pb(II) from aqueous solutions by Hydrilla verticillata using a fixed bed column – biosorption and desorption studies*
M.Sc Degree (2013): Postgraduate Institute of Science, University of Peradeniya
- P.K.D. Chathuranga *Uptake of heavy metals by non-living biomass and removal of metals by selected plant species*
M.Phil Degree (2013): Postgraduate Institute of Science, University of Peradeniya

Undergraduate degrees supervised

Research project and name of student	Year	University
Callusing ability and plant regeneration from Sri Lankan varieties of <i>Oryza sativa sp. indica</i> . E.I.C.de Silva	2003	Faculty of Agriculture, Mapalana University of Ruhuna
Haploid induction and secondary embryogenesis of <i>Datura metel</i> L. (Kalu attana). W.G.N.M. Indika	2003	Faculty of Agriculture, University of Peradeniya
Anti-ethylene factors from selected plant species growing in Sri Lanka. M.G.N.P. Medagoda	2004	Faculty of Agriculture, University of Peradeniya
Transfer of favourable fatty acids and agronomic characters from <i>Brassica napus</i> to <i>Brassica juncea</i> by interspecific hybridization. P.K.D. Pieris	2005	Dept. of Botany, Open University of Sri Lanka
Characterization and differentiation of local mustard (<i>B. juncea</i> L.) accessions and improvement of their nutritive quality	2006	Dept. of Botany, Open University of Sri Lanka
Phenotypic variation and their relationship among mustard (<i>Brassica juncea</i> L.) from Sri Lanka and interspecific hybridization of selected accessions. S.R.G. Damayanthi	2006	Faculty of Agriculture, Rajarata University of Sri Lanka
Heavy metal uptake in selected plant species. P.K.D. Chathuranga	2008	Dept. of Chemistry, Open University of Sri Lanka
Uptake of heavy metals by <i>Fimbristylis ovata</i> and <i>Fimbristylis falcata</i> . G.I. Ranaweera	2010	Dept. of Botany, University of Sri Jayawardenapura
Environmental remediation of heavy metals using plant species	2010	Dept. of Chemistry, Open University of Sri Lanka
Effect of synthetic chelates on heavy metal removal by two <i>Fimbristylis</i> species. S.K.A.T. K. Dharmasena	2011	Dept. of Botany, University of Sri Jayawardenapura
Screening of aquatic plants for lead uptake	2011	Faculty of Agriculture, University of Peradeniya
Development of a 'City-canopy-carbon index' based on tree carbon stock. D.V.H.H. Delvinne	2012	Dept. of Zoology, University of Colombo
Temporal changes in drought pattern in different agro-ecological regions in Sri Lanka	2013	Faculty of Agriculture, Mapalana University of Ruhuna
Removal of cadmium from contaminated soil and treatment of effluents using <i>Nephrolepis exaltata</i> . H.P.G.R.M. Samarakkody	2013	Faculty of Agriculture, Mapalana University of Ruhuna.
Effects of increasing soil Cadmium and applications of biochar on the growth and yield of two rice (<i>Oryza sativa</i> L.) varieties in different age classes. N.M.D.P. Nawarathna	2014	Faculty of Agriculture, University of Peradeniya

Fluoride uptake by native and modified cattle bones from aqueous medium by batch adsorption. B.A.P.T. Gunathilake 2014 Faculty of Agriculture, University of Peradeniya

Service to Universities/Professional Organizations

Served on the panel of teachers/examinations, Postgraduate Institute of Science, University of Peradeniya 2002

Conducted an M.Sc course on Plant Tissue Culture, Postgraduate Institute of Science, University of Peradeniya, 2004

Moderator and examiner for Uva-Wellessa University, 2010

Chairperson for the Technical session of the Research Symposium 2012 of the Uva-Wellessa University of Sri Lanka

Sri Lanka Association for the Advancement of Science

- 2007 Committee member of Section B,
- 2007 Member of the Committee for the Popularisation for Science
- 2010 Chairman of the General Research Committee
- 2011 Member of the General Research Committee
- 2013 Member of the General Research Committee
- 2014 Member of the General Research Committee
- 2014 Member of the Science and Technology Advisory Committee
- 2015/2016 Member of the Ethics Committee
- 2016 Member of the General Research Committee

National Science Foundation

2013 - Member of the Working Committee on Environment and Biodiversity of the National science Foundation, Sri Lanka

Royal Asiatic Society of Sri Lanka

2013-2015 Member of the Council, Royal Asiatic Society of Sri Lanka.

Institute of Biology

2014 – 2015 Member of the Council

Service to the National Institute of Fundamental Studies

2012 Contributed to compiling and editing the IFS Self-Assessment Report for the NASTEC Review 2009 - 2011

Represented the NIFS at various meetings at the Ministry of Technology and Research, Consultative Committee meetings of the Ministry and COPE meeting at the parliament.

Served as liaison officer between the NASTEC and the NIFS for preparing the national Review of the Status of Science and Technology for 2009/2010, 2011/2012, and 2013/2014.

Served on the editorial committee of the Annual Review Sessions of the NIFS: 2011-2014.