

**UNESCO Madanjeet Singh Centre for South Asia Water Management (UMCSAWM)  
University of Moratuwa, Sri Lanka**

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## **UMCSAWM-SL Program guide**

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**The UNESCO - Madanjeet Centre for South Asia Water Management (UMCSAWM) at University of Moratuwa, Sri Lanka is pleased to announce the SAF-Madanjeet Singh Group scholarships for the two-year (fulltime) degree program to be undertaken at the Department of Civil Engineering, University of Moratuwa, Sri Lanka from March 2022 to February 2024. Two candidates each from the eight SAARC countries (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) will be selected for the scholarship.**

**The degree program offered:**

**Master of Science Degree/ Postgraduate Diploma in Water Resources Engineering and Management (2022/2024)**

**The scholarship will cover: (a) Tuition fees, (b) Economy air travel from the scholar's country of residence within SAARC to Sri Lanka and back, (c) Monthly stipend based on existing SAARC scholarship rate to cover board and accommodation (e) In-country travel, Medical insurance, and research expenses as per University rates.**

**Please find further information below and application form attached herewith.**

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## **Useful Information**

### **University of Moratuwa, Sri Lanka**

The University of Moratuwa (UoM)-Sri Lanka, located at the heart of a vibrant and geographically well-connected city in the backdrop of a vast expanse of shimmering waters of the picturesque Bolgoda Lake, is the only Technological University in the country. The university presently caters for a total undergraduate population of approximately 8,000 students and about 1,200 postgraduate students and prides itself in having an excellent Engineering Faculty and being the only University in Sri Lanka to have Faculties of Architecture and Information Technology.

The Faculty of Engineering is the largest faculty in the University of Moratuwa comprising 19 academic departments offering courses in 12 engineering disciplines. The courses offered have been designed based on years of solid industry experience and dynamic international perspectives to ensure that the students attain internationally accredited undergraduate and postgraduate engineering qualifications with an entrepreneurial dimension, also demonstrating distinctive strengths in education and research.

The UoM has a well-earned reputation for providing a satisfying student experience, academically and culturally. It admits outstanding undergraduate and postgraduate students for its academic programmes. UoM offers Sri Lanka's exclusive Engineering, Architectural, Quantity Surveying, Facilities Management, Town and Country Planning, Fashion Design

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and Product Development and Transport and Logistic Management degree programmes. The UoM is one of the highest internationally ranked universities in Sri Lanka and the undisputed leader in engineering, architectural and technological education.

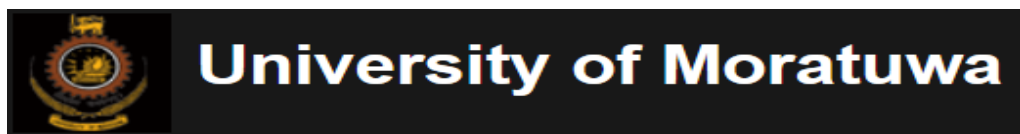
The vision of UoM is “to be the most globally recognised Knowledge Enterprise in Asia.” Within this vision, the immediate focus is to produce world-class graduates at the UoM. Hence, the aim of the University is to produce academically sound, self-confident, flexible and internationally recognized quality graduates who are able to hit the ground running from day one, and who can realise their true potential studying together and thereafter working together as professionals in Sri Lanka or any other international environment.

Being the largest Faculty, the Faculty of Engineering enforces the University mission by focusing to be the leading Knowledge Enterprise for technological and related disciplines in Asia by:

- Providing transformative education that nurtures the inquiring mind and develops skills for a diversity of challenges;
- Carrying out nationally/internationally relevant and high-impact research to expand the boundaries of knowledge;
- Promoting entrepreneurship and facilitating technology transfer;
- Providing expert services to the State, Industry and the Society as an Internationally positioned National University; and
- Contributing to the sustainable, scientific, technological, social and economic development of Sri Lanka.

At the UoM, a student becomes part of a wonderful fraternity of talented youth, from all walks of life, diverse ethnicities and backgrounds, who are the best young minds in the country. While a student’s stay at the university will be academically challenging, the student will have a truly rewarding experience with numerous opportunities for social, cultural and sports activities within a stimulating and supportive environment to learn.

The University of Moratuwa welcomes the students to a truly unique educational experience!





## UNESCO Madanjeet Singh Centre for South Asia Water Management (UMCSAWM), University of Moratuwa, Sri Lanka

The UNESCO Madanjeet Singh Centre for South Asia Water Management (UMCSAWM) established in April 2013 attached to the Department of Civil Engineering, University of Moratuwa, Sri Lanka is the newest member to join the UNESCO Madanjeet Singh Institutions of Excellence and a landmark in the Sri Lankan university history as the first international centre established to conduct full-time postgraduate degree programmes.



The UMCSAWM has been established with the support of the South Asia Foundation (SAF), with the objective of promoting regional cooperation through South Asian Water Management Education. The Department of Civil Engineering, in collaboration with UMCSAWM, intends to offer Postgraduate Degrees and Diploma Courses in the field of Water Resources Management and Hydraulics Engineering while offering

fully paid Madanjeet Singh Scholarships (funded by SAF) to selected full-time participants from The South Asian Association for Regional Cooperation (SAARC) countries. The Centre will also conduct pioneer research in the areas of water management and water resources engineering with relevance to South Asian countries and accommodate full-time international students from SAARC countries, while full-/part-time positions will be available to local students.

The UMCSAWM offered the Master of Engineering/Postgraduate Diploma in Water Resources Engineering and Management programme commencing from August 2013, and taking a step ahead, the programme was revised and revitalised in 2014 incorporating more practical and field-oriented Problem Based Learning (PBL) components in each module. The present distinct course, Master of Science Degree/ Postgraduate Diploma in Water Resources Engineering and Management is offered starting from February 2015 (Third intake onwards), targeting Engineering graduates who wish to pursue postgraduate studies in water resources planning, engineering, management and related disciplines.

The course has been carefully designed to teach water resources management in the context of the South Asian region and intends to provide the participants with a firm grounding in the principles, techniques, issues and practice of Water Resources Engineering and Management. This unique course is designed mainly for practising civil engineers and scientists to update their knowledge and keep abreast with recent developments in water resources management and hydraulic engineering fields.

The UMCSAWM focuses on two parallel approaches to achieve its cardinal objective of regional cooperation - one through academic studies and the other through research activities. A multi-dimensional approach shall create a hub of scholars that specialize in Water Management studies in the SAARC region and other countries, and at the same time promote international



convergence of Water Management expertise in Engineering, Irrigation, Hydrology, GIS, Climate Change Impacts and Disaster Risk Analysis, and Environmental Sustainability, etc.

The University of Moratuwa has newly built a magnificent three-storied building adjacent to the Civil Engineering Complex to host the Centre with partial support from the generous personal contributions from SAF Founder and UNESCO Goodwill Ambassador Late Shri Madanjeet Singh. In addition to the teaching facilities and common spaces presently available at the Department of Civil Engineering, this new Centre building provides dedicated space for all UMCSAWM and other students with two lecture rooms, a computer room, staff and student rooms, areas for research and self-study, space for individual/group work, a conference room, library space, administrative space, and other common areas.

Outdoor experimental areas are also available to demonstrate practical applications in three distinct water specialities, namely, Irrigation, Urban Storm Water Drainage, and Riverine and Estuary Ecosystems. Regular workshops and webinars covering the state of the art software applications and addressing timely regional and global topics related to water, climate change, etc., are organized and conducted to enhance the exposure of participants. These facilities will ensure extensive exposure and hands-on research experiences at an advanced level of application to the participants of all UMCSAWM programmes.



The UMCSAWM Premises, University of Moratuwa (above) and the unique learning experience at UMCSAWM based on in-class and field activities (below)



## **Courses offered at the UMCSAWM**

### **Name of degree programme(s)**

M. Sc. / PG Diploma in Water Resources Engineering and Management

### **Full title**

Master of Science Degree / Postgraduate Diploma in Water Resources Engineering and Management

### **Abbreviated title**

M.Sc./ PG Diploma in Water Resources Engineering and Management

### **Course Details**

The degree/diploma course is designed to cater for candidates with an engineering background, and with an interest in the ever-growing, diverse fields of water resources planning, engineering and management. The course content of the above programme has been carefully prepared to enhance the candidates' theoretical knowledge on design and practical applications while addressing various aspects pertaining to Water Resources Engineering and Management.

Teaching and learning methods are aligned to provide an integrated and interdisciplinary approach. The programme structure brings together the scientific study of water resources with practical planning and management skills, encouraging participants to study water management from multi-disciplinary perspectives and to seek integrated solutions. Effective use of computer software in water resources and watershed modelling, designing of hydraulic structures, Geographic Information System (GIS) and Integrated Water Resources Management (IWRM) related aspects have also been incorporated. Each module has assignments, design and management coursework with Problem Based Learning (PBL) component which help participating engineers/scientists to solve real-life problems related to Water Resources Engineering and Management. Improvement of communication and presentation skills is also achieved through seminars, coursework assignments and oral tests. The compulsory research project (for M.Sc. programs) is envisaged to provide a good opportunity for the candidates to develop their research skills.

Field visits, guest lectures and field measurement/experiment procedures are arranged for the participants on a regular basis to further enhance their learning experience and field exposure, offering them an opportunity to acquire field-oriented knowledge and practical, real-life experience very much needed to handle multifaceted issues in water resources management and water engineering related areas. Both in-contact and online/hybrid modes are followed.

The two year M. Sc. (full-time) program offered at the UMCSAWM has been designed to cater for the demand from professional engineers to advance their technical know-how after gaining adequate experience in the field of engineering while getting exposed to the emerging advanced knowledge dimensions across a wide swathe of domains.

The total credit requirement for the PG Diploma is 40 (SLQF Level 9) and MSc degree is 60 (SLQF Level 10) based on the research/coursework component and duration of the program (for both full-time and part-time courses), which is comparable with any other M.Sc. program.

This all-embracing program structure based on taught courses, research and especially with Problem Based Learning (PBL) approach common to all modules brings together the scientific study of water resources with practical planning and management skills, encouraging participants to study water management from a multi-disciplinary perspective and to seek integrated solutions.

The subjects offered would cover the main areas of;

• **Compulsory modules (28 Credits)**

- Advanced Engineering Hydrology and Watershed Management
- Advanced Irrigation Water Management for Food and Water Security
- Advanced River Engineering and Estuary Hydraulics
- Integrated Water Resources Management
- Remote Sensing and Geographic Information Systems (GIS) for Planning and Management
- Research Methods for Water Resources Engineering Planning and Management
- Water Resources Project Planning & Management
- Water Supply and Sanitation Systems and Water Quality Management

• **Research Project (20 Credits)**

- Supervised Research Project (for M.Sc. only) relevant to the course for Master of Science Degree

• **Elective modules (12 Credits)**

- Advanced Coastal Engineering and Estuary Management
- Advanced GIS for Water Resources Management
- Advanced Remote Sensing and Global Positioning Systems
- Advanced Water Supply and Sanitation Systems for Engineering Applications
- Climate Change Impacts and Adaptation Options for Water Management
- Disaster Risk Assessment, Reduction and Mitigation
- Environmental Assessment of Water and Related Infrastructure Development
- Service Delivery Assessment Concepts for Water Supply and Irrigation Systems
- Water Resources Systems and Watershed Management for Planning and Management

## Course Outline

The admissions of international and local students to the M. Sc. / P.G. Diploma course are scheduled in January~February every year. The minimum duration of Master of Science Degree courses is two years (21 months) on full-time basis or 24 months on part-time basis, and the minimum duration of a Post-graduate Diploma is one (01) year (12 months) on part-time basis. Based on program need and SAF requests, the one-year full-time program duration was extended to two years from 2020 Intake onwards. The common core modules will be conducted together for both full-time and part-time participants while other compulsory modules and electives will be offered separately. The PG Diploma and part-time M.Sc. program options are available only for local students. During the first 12 months, which is common to both groups, the students will follow a course of intensive lectures, complete Problem Based Learning (PBL) coursework and other assignments/laboratory classes and attend seminars on Fridays and Saturdays. Additional lectures and research activities for full-time (local and international) students will be conducted from Monday to Thursday. The full-time students are expected to commence the research projects from the beginning of the course while the part-time students have the option of late commencement (in the second year). For part-time (local) students, lectures will be conducted usually only on Fridays and Saturdays. On special occasions, especially when exchange/visiting lecturers are available from overseas, selected activities may be conducted on other days.

All taught courses are offered during the first 12-month period, which consists of three terms. In the first two terms, three subjects are taught per term with continuous assessments (PBL and others) and written examinations at the end of the term. During the third term, two subjects are offered with the written examinations at the end of the term. During these three terms, students will also engage in the relevant design coursework assignments and be continuously evaluated on their assignments, reports and seminars. Those who successfully complete all examinations are eligible to continue for M. Sc. Degree or to obtain P.G. Diploma. Those who register for M. Sc. Degree need to carry out a research project in a specified area under the guidance of a supervisor(s). The research project has to be completed by the end of the fourth term and on completion, the results should be submitted in the form of a dissertation. On submission of the dissertation, a formal assessment of the research work will be undertaken in line with the University of Moratuwa rules and regulations.

### Course Duration

Degree	Minimum Duration	Normal Duration	Maximum Duration
M. Sc. (Full-time)	21 months	24 months	36 months
M. Sc. (Part-time)	21 months	24 months	48 months
P.G. Dip. (Part-time)	12 months	24 months	48 months

### Course Fees - Tuition Fees

#### Local applicants

##### Tuition Fees

- M. Sc. Full time: Rs. 350,000/=
- M. Sc. Part-time: Rs. 350,000/=
- PG Diploma: Rs. 250,000/=

##### Other Fees

- Registration Fees: First year Rs. 1,000/= Second year Rs. 1,000/=
- Examination Fee : Rs. 1,000/=
- Refundable Library Deposit: Rs. 2,500/= per book (up to 2 books)

#### Overseas applicants

##### Tuition Fees & others

- M. Sc. Full time (SAARC Countries): US\$ 5,000
- Other Countries: US\$ 6,000



## Minimum Qualification(s) for admission to the courses at UMCSAWM

### Eligibility Requirements

- 1.1 The eligibility requirements for the M. Sc. Degree course shall be decided by the Department subject to the minimum eligibility requirements specified in Section 1.2 and approved by the Faculty and the Senate.
- 1.2 An applicant fulfils the minimum eligibility requirements to follow the prescribed course leading to the Degree of Master of Science, if he/she has:
  - (a) The Degree of Bachelor of Science of Engineering of the University of Moratuwa, Sri Lanka or an equivalent degree in a relevant field, as approved by the Senate;
  - OR**
  - (b) At least the Associate Membership of a recognized professional Engineering Institute in a relevant field with a minimum of one (01) year period of appropriate experience, as approved by the Senate;
  - AND**
  - (c) If English is not the medium of instruction in the first degree of the candidate, valid TOEFL (a minimum of 500 points in paper-based, 173 in computer-based, or 61 in internet-based test) or IELTS (a minimum of 5.0 in Academic Version) scores or equivalent.

Selections will be based on the minimum eligibility requirements above, qualifications and experience, and performance at the interview.

### Application and Selection Procedures

1. Closing date for submission of applications for local and international candidates is **31<sup>st</sup> of August, 2021 (For international candidates, the internal deadlines for each SAF chapter may be different, and please check with your SAF Chapter Office)**.
2. Candidates from SAARC countries who intend to apply for South Asia Foundation (SAF) scholarships should submit their duly completed applications (with all supporting documents and certified true copies of certificates) to the Secretariat, South Asia Foundation (SAF) Chapter in their respective country.  
Please visit the SAF website: [http://www.southasiafoundation.org/saf\\_contacts.htm](http://www.southasiafoundation.org/saf_contacts.htm) for contact details (also provided below).
3. Candidates from SAARC countries (self-funded) or Non-SAARC countries should submit their duly filled applications (with all supporting documents and certified true copies of certificates) to the Course Coordinator (same as for local applicants).
4. South Asia Foundation (SAF) office in each country will pre-screen the applications based on the eligibility criteria mentioned herein and the names of the short-listed candidates from each SAARC country should reach the office of the Secretary, SAF Sri Lanka latest by **03<sup>rd</sup> September 2021** through the SAF office in their respective country

for further scrutiny and acceptance into the degree program at UMCSAWM/ University of Moratuwa, Sri Lanka.

5. The final assessment of the selected candidates from SAARC countries will be done jointly by a selection committee from the Department of Civil Engineering, University of Moratuwa and UMCSAWM. Online assessment tests and/or telephonic/ Skype interviews with short-listed candidates may be arranged as required.
6. Based on the final assessment, a candidate may or may not be accepted into the program if SAF offices of the SAARC countries have not fulfilled the set eligibility criteria.
7. The right of acceptance or rejection of candidates nominated by SAARC countries into the UMCSAWM/University of Moratuwa degree program is with the UMCSAWM and University of Moratuwa.
8. The letter of acceptance or rejection into the scholarship program will be sent to the SAF office of the respective SAARC country for further conveyance to the individual candidate.

### Contact details of SAF Chapters

1. Afghanistan : Mr. Hamidullah Arefi : [hamidullah\\_arefi@yahoo.com](mailto:hamidullah_arefi@yahoo.com)  
[arefi@safmail.org](mailto:arefi@safmail.org) +93-700-163568
2. Bangladesh : Mr. Bachchu Shekh : [bachchu@safmail.org](mailto:bachchu@safmail.org) +880-2- 01797 559610
3. Bhutan : Mr. Nima Gyeltshen : [nima@safmail.org](mailto:nima@safmail.org) +975-17871411
4. India : Dr. Nihar Ranjan Das : [nihar@safmail.org](mailto:nihar@safmail.org) +91-9911729698
5. Maldives : Mr. Ahmad Hamdhan : [hamdan.kendo@gmail.com](mailto:hamdan.kendo@gmail.com) +96-07904902  
[hamdan@safmail.org](mailto:hamdan@safmail.org)
6. Nepal : Dr. Nishchal Pandey : [nina@ntc.net.np](mailto:nina@ntc.net.np) +977-9851058622  
Mr. Ramesh Timasina : [timasina@safmail.org](mailto:timasina@safmail.org) +977-9841737362
7. Pakistan : Ms. Marvi Mazhar : [marvi@safmail.org](mailto:marvi@safmail.org) or [marvi.mazhar@gmail.com](mailto:marvi.mazhar@gmail.com)  
+92-2135389023
8. Sri Lanka : Ms. Swinitha Perera : [safsrilankachapter@gmail.com](mailto:safsrilankachapter@gmail.com) +94-773858591  
+94-11-2676630

## Documents to be Submitted

- Please submit duly filled application forms (Pages 1-3 of the application form) with confidential recommendations from two non-related referees (Pages 5-6 & 7-8) as instructed in the form.
- Please check whether you have attached the following with the application:
  1. Certificate of the Engineering Degree, clearly indicating the authority of awarding institute and dates
  2. Official Transcript/GPA sheet
  3. English Language Proficiency Certificate (if applicable) (TOEFL/IELTS)
  4. Job Experience Certificate from the Employer
  5. A copy of Citizenship ID card/valid passport
  6. Birth Certificate (English translation)
  7. Photograph and Copies of birth certificate & National Identity Card/Valid Passport
  8. Recently updated curriculum vitae and a declaration indicating that the submissions are true and correct

Note: All copies submitted should be certified as true copies of the original documents either by a University Registrar, Legal Practitioner or Justice of Peace/Notary Public, or a SAF Official (For candidates applying through SAF chapters).

For candidates with organizational sponsorships, an original letter, on official letterhead, confirming sponsorship by the organization must be attached.

## SAF Madanjeet Singh Group Scholarships available for studying at UMCSAWM

The South Asia Foundation (SAF) will offer sixteen (16) SAF Madanjeet Singh scholarships (based on gender equality) for the two-year (full-time) Master of Science in Water Resources Engineering and Management programme offered by the Department of Civil Engineering, University of Moratuwa, Sri Lanka. The programme to be commenced in March 2022 will be conducted at the UNESCO Madanjeet Singh Centre for South Asia Water Management (UMCSAWM) attached to Department. Two candidates each (maximum up to four) from the eight (08) SAARC countries (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) will be selected for the scholarships.

The scholarship will cover: (a) Tuition fees, (b) Economy air travel from the scholar's place of residence within SAARC to Sri Lanka and back, (c) Monthly stipend of SLRs. 60,000/= based on the existing SAARC scholarship rate to cover boarding and accommodation, (d) One-time contingency grant/settle in allowance of SLRs. 25,000/= upon arrival, (e) nominal book allowance and for photocopying/printing, (f) in-country travel facilities for academic/research purposes will be provided by the University or reimbursed in-part as per the existing rate.

Finding accommodation will be supported/coordinated by UMCSAWM/SAF Sri Lanka.