

# Aroshi Senanayake

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## Personal Data

<b>Name in full</b>	Senanayake Mudiyansele Aroshi Erandika Senanayake
<b>Passport No:</b>	N6877966 ( <a href="#">View</a> )
<b>ID No.</b>	958413831V
<b>Date of Birth</b>	6 <sup>th</sup> of December 1995 ( in <a href="#">Peradeniya, Srilanka</a> )
<b>Gender</b>	Female

## Profile

A self-motivated, hardworking, and responsible person who can adapt to all challenging situations with a passion to pursue new research technologies. Sound communication skills and analytical thinking on addressing different situations practically along with the sense of synergy. Motivated by research and able to work well both in a team environment and as well as using my initiative. Interested in environmental engineering, which includes water, wastewater, and solid waste treatment technologies.

## Education

Tertiary:	<p>B.Sc. (Eng.) <b>First Class Honours</b> in Civil Engineering, <a href="#">University of Peradeniya, Sri Lanka</a>. Nov 2015-July 2020.</p> <p>Final GPA: <b>3.85 /4.0</b> (<a href="#">View Transcript</a>) Class Rank: <b>5<sup>th</sup> out of 150</b> Civil Engineering students.</p> <p>The complete four-year degree program was conducted and assessed in the <b>English medium</b>. (<a href="#">View</a>)</p> <p>This is an accredited degree program by <b>Washington Accord</b> through <a href="#">IESL</a>.</p>
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Secondary:	G.C.E. Advanced Level (A/L) in Physical stream, from <a href="#">Mahamaya Girls' College, Kandy, Sri Lanka</a> . 2014.  Results: Combined Mathematics – A, Physics – B, Chemistry – A Z-Score: 2.0099. ( <a href="#">View result sheet</a> )
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## Projects

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Final year research project (2019-2020)	<b>Development of an adsorbent material to remove Fluoride from water</b> <i>Supervised by</i> Dr. K.G.N. Nanayakkara  Developed a novel <b>chitosan-biochar</b> composite adsorbent material to remove <b>fluoride</b> from groundwater. Besides, a comparative study was done with raw chitosan powder. Fluoride sorption equilibrium was reached after 1 hour with an excellent removal efficiency of 90% for modified adsorbent while raw powder only exhibited a removal efficiency of 16%. ( <a href="#">View project thesis</a> )
Final year multi-disciplinary design project (January 2020-July 2020)	<b>Design of a new bridge to reduce traffic congestion in Peradeniya junction</b> <i>Supervised By</i> Dr. D. De S. Udakara, Dr. G.M.P.R. Weerakoon, Dr. H.D. Yapa, and Mr. D.D. Dias  Designed a new two-lane prestress concrete bridge parallel to the existing Peradeniya Bridge to mitigate the traffic congestion in the Peradeniya junction. The bridge design was done using Autodesk Structural Bridge design 2019 software. ( <a href="#">View Project report</a> )
Mini Project ( 2019)	<b>Investigating industrial waste treatment procedures in a brewery industry</b> <i>Supervised By</i> Prof. K.B.S.N. Jinadasa  Brewery waste treatment procedure in Heineken Lanka Pvt. Ltd. was observed and analyzed to investigate the existing treatment facilities. Besides, new improvable methods were suggested to the treatment system and possible difficulties were addressed.

## Conference Proceedings

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N.K.L.C. Rupasinghe, **S.M.A.E. Senanayake (Presenter)**, K.G.N. Nanayakkara, “Development of an Adsorbent Material to Remove Fluoride from Water.” 11<sup>th</sup> International Conference on Sustainable Built Environment (ICSBE) 2020. Kandy, Srilanka. - ([View abstract](#); [view full paper](#))

## Work Experience

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August 2020- Present	<b>Temporary Academic Instructor at <a href="#">Faculty of Engineering, University of Peradeniya</a></b>  Conducting environmental laboratory experiments (BOD, Membrane filtration technique, Seepage) and Hydraulic and Environmental design classes for undergraduates.
February 2020 – May 2020	<b>Volunteer Academic Instructor at <a href="#">Faculty of Engineering, University of Peradeniya</a></b>  Conduction of Design classes for undergraduate students. Conduct lessons and guide the orientation program for first-year students.
March 2019- May 2019	<b>Engineering trainee at <a href="#">Civil and Structural Engineering Consultancies</a></b>  Building specification documents were prepared, Monitored a steel cantilever construction in Cinnamon life project, Colombo. The piling procedure was observed in Cinnamon Red Project, Kandy.
October 2017- January 2018	<b>Engineering intern at <a href="#">National Water Supply and Drainage Board.</a></b>  Identification of the components of a water treatment plant, Application and development of several GIS networks, Wastewater treatment plant processes were monitored, Advanced water treatment techniques were studied.

## Competitions and Extra-Curricular Activities

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Competitions	<b>Participated in INSEE Concrete mix design competition (2019)-</b> intra-university level winner  <b>Participated in LANWA Spaghetti bridge competition (2017)</b>  <b>Participated in LANWA Award Programme, (2018) -</b> Engineering Communication  <b>Australian National Chemistry Quiz</b> High Distinction Pass, 2011 and 2013  <b>Winner- Intra school maths drama completion 2011 –</b> Mahamaya Girls' College, Kandy.
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Volunteering	<b>IEEE Women in engineering, “Dream Venture”</b> - April 2018 - Organized a Women empowerment seminar for school students in Kandy <b>Conducted a Maths and Science Seminar for Ordinary level students at Badulla (2018).</b>
Fieldwork	<b>Surveying Field camp</b> , Passara, Badulla (2019) - A contour survey was done in Passara to identify a potential location to construct a Dam. A contour map was plotted and a setting out exercise was carried out to find the centreline of the Dam axis.
Societies	<b>Coordinator – Astronomical Society</b> (2012 - 2014)- Mahamaya Girls College, Kandy. <b>Committee member – Science Society</b> (2012 – 2014)- Mahamaya Girls’ College, Kandy. <b>Member, Music Society – (2015- 2020)</b> - University of Peradeniya <b>Member, Ceylon University Dramatic Society – (2015- 2020)</b> - University of Peradeniya

## Skills

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<b>Programming:</b>	MATLAB, Python
<b>Software</b>	<b>Structural :</b> AutoCAD 14, Autodesk Bridge design 2019, Sap 2000 21 <b>Geo and Highway :</b> Civil 3D 16, Geo Studio 12, Plaxis 8.2, GIS <b>Water :</b> SWMM 5.1, Water GEM, Cropwat, HEC-RAS 5.0.7
<b>Other:</b>	MS Office, MS Project, Adobe Photoshop

## Referees

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**Dr. K.G.N. Nanayakkara**

Senior Lecturer,

Department of Civil Engineering,

University of Peradeniya, Sri Lanka, 20400

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**Prof. K.B.S.N. Jinadasa**

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