

# Viduranga Landers

## INCOMING FIRST-YEAR STUDENT

Wattala, Sri Lanka | Date of birth : 27/02/2002 | Nationality : Sri Lankan

☎ (+94) 761676711 | ✉ vidurangalanders@gmail.com | 🌐 viduranga-landers

*A highly motivated student with strong leadership qualities who is constantly seeking new challenges to push the limits of his knowledge. Contributes to the development of the space industry in Sri Lanka by initiating space projects for local space communities. Actively seeking for academic and research opportunities in astronautics.*



## Experience

### Project Lead - Nexus Aurora Corporation ∞

- Leading the research and development of a planetary penetrator device (Soil Penetration Darts – SPD) to reduce the cost of obtaining deep soil samples from the Moon

Remote - DE, USA  
Aug 2022 - Present

### Team Lead - Remote Student Team - GLEE ∞

- Remotely developing two LunaSats for the GLEE, an Artemis Student Challenge by NASA

Western, Sri Lanka  
May 2022 - Present

### Writer / Programmer (Part Time) - Fiverr

- Working on assignment writing, data science and programming projects for a local network

Remote - Sri Lanka  
Mar 2022 - Present

### Systems Engineering Group Lead - Robotics and Rover Division | SEDS Sri Lanka ∞

- Introducing and implementing systems engineering principles to ongoing projects
  - Taprobane v3.0: 17<sup>th</sup> Place in the European Rover Challenge 2022

Sri Lanka  
Jan 2022 - Present

### Lead - Lunarbot ∞

- Developing innovative instruments and subsystems for planetary rovers
  - SAWS: A grouser adjustable wheel system for space exploration rovers
  - SAWS-SSAM: Integration of SAWS to the MDRS SSAM rover of Nexus Aurora Corp.
  - SWORD: An extendable drilling mechanism for deep drilling on the lunar surface
  - SPIDER: Runners-up Lunar rover concept at the Singapore Space Challenge 2021

Western, Sri Lanka  
Feb 2020 - Present

### Structures & Thermal Subsystem Lead - RAISE - ACHIEVED | SEPG | SGAC ∞

- Designed the structures & thermal systems of a Mercury sample return mission concept

Remote – Int'l  
Jan - Sep 2022

### Coordinator - SEDS Juniors | SEDS Sri Lanka ∞

- Organized local space events and managed a group of 1000+ pre-university students

Sri Lanka  
Mar 2021 - Jun 2022

### Technical Assistant - Part Time - Deluxe Traders Pvt. Ltd

- Aided repair and configuration of 100+ work laptops

Wattala, Sri Lanka  
Oct 2019 - Aug 2020

## Education

### Secondary Education - D. S. Senanayake College (DSSC)

GCE Advanced Level - Physical Science Stream

- 2 A passes, 1 B pass and 1 C pass
- All Island Rank: 2256
- Z Score: 1.6580

Colombo, Sri Lanka  
Jul 2019 - Aug 2022

GCE Ordinary Level

- 9 A passes

Jan 2017 - Apr 2019

Activities - • President - Astronomy Club • Secretary - Social Services Association  
• Quiz Captain - Science Association • Executive Committee - Aeronautical Club

### Introduction to Quantum Computing - The Coding School | Qubit x Qubit | IBM

- One year program in quantum computing

Online  
Oct 2020 - May 2021

### Certified Network Security Specialist (CNSS) – International Cyber Security Institute (ICSI)

- Certificate course on Network Security administration

Online  
May 2020 - Jul 2020

### JAVA Application Development – University of Colombo – School of Computing

- Three months training program on JAVA SE

Colombo, Sri Lanka  
Jan - Mar 2019

## Summer Schools & Workshops

Summer School in Planetary Sciences - <a href="#">University of Science and Technology of China</a>	31 Jul - 06 Aug 2022
Sagan Summer Workshop 2022 - <a href="#">NASA Exoplanet Science Institute</a>   <a href="#">Caltech</a>	25- 29 Jul 2022
Qiskit Global Summer School 2022 on Quantum Simulations - <a href="#">IBM</a>	18 - 29 Jul 2022
Data Science Masterclass - <a href="#">Datathink Professional</a>	27 Jun - 28 Jul 2022
Qiskit Global Summer School 2021 on Quantum Machine Learning - <a href="#">IBM</a>	12- 23 Jul 2021
CubeSat Development and Ground Station Control - <a href="#">SEDS Pera</a>   <a href="#">IEEE MTT-S</a>   <a href="#">Orion Space</a>	16 May -20 Jun 2021
QBronze Diploma in Quantum Computing and Programming   <a href="#">QTunisia</a> , <a href="#">QWorld</a>	Oct - Nov 2020
CubeSat Workshop and Lecture Series - <a href="#">SEDS Pera</a>   <a href="#">Orion Space</a>   <a href="#">University of Peradeniya</a>	7 - 10 Mar 2020

## Awards

<b>Finalist -17<sup>th</sup> Place</b>	European Rover Challenge ( <i>Team</i> )	2022	<a href="#">ERC</a>
<b>Advanced Achievement</b>	IBM Quantum Challenge	2021, 2022	<a href="#">IBM</a>
<b>Top Scorer</b>	IBM Quantum Challenge	2021 - Spring	<a href="#">IBM</a>
<b>Distinction Award</b>	Singapore Space Challenge 2021 ( <i>Team</i> )	2021	<a href="#">SSTL</a>
<b>High Distinction</b>	Sri Lankan Mathematics Competition	2021, 2019, 2018	<a href="#">SLOMF</a>
<b>Global Nominee</b>	NASA Space Apps Challenge 2020 ( <i>Team</i> )	2020	<a href="#">NASA</a>
<b>Silver Award</b>	Hong Kong International Mathematics Olympiad Heats	2020	<a href="#">HKIMO</a>
<b>Gold Medal</b>	Sri Lankan Astronomy & Astrophysics Olympiad	2019	<a href="#">IPSL</a>

## Skills

<b>Programming</b>	Python   JAVA (basic)   QASM (basic)   Data Analysis   Machine Learning (basic)
<b>Other Technical</b>	CAD/FEM (SolidWorks, SolidEdge, Inventor)   DEM (EDEM, PFC)   Video Editing (After Effects)
<b>Soft Skills</b>	Leadership   Project Management   Teamwork   Research   Writing   Science Communication
<b>Languages</b>	Sinhala   English

## Publications

<b>Soil Penetration Darts (SPDs) for Deep Soil Sampling</b>	<a href="#">Paris, France</a>
73rd International Astronautical Congress   Landers V.*, Pathirana O., Janandith O. et al	18 – 22 Sep 2022
<b>Mercury Sample Return Mission Design Utilizing Innovative Systems and Technologies</b>	<a href="#">Paris, France</a>
73rd International Astronautical Congress   Rao S.*, Landers V. Et Al	18 – 22 Sep 2022
<b>A Self Adapting Wheel System</b>	<a href="#">Dubai, UAE</a>
72nd International Astronautical Congress   Landers V.*, Pathirana O., Pieris J., Ranasinghe S.	25 – 29 Oct 2021

## Patents

<b>A Fully Autonomous Extendable Drill - LKA 21652 (<i>Applied</i>)</b>	Mar. 2021
<b>A Wheel that includes Autonomous Adjustable Grousers – LKA 21653 (<i>Applied</i>)</b>	Mar. 2021

## Volunteering

<b>Contributor &amp; Event Organizer</b>	2016 - Present
• Annual Family CSR Projects for donating educational materials to rural schools	
<b>Citizen Scientist</b> - Asteroid Search Campaigns by the IASC and Pan-STARRS	2020 – 2021
• Provisional Asteroids discovered: 2021 CH23, 2020 TL54, 2020 QF3, 2020 PX12	
<b>Mentor</b> - School Astronomical Society (NASA Educator Professional Development: 7 credits)	2019 - 2021
<b>Chief Organizer &amp; Mentor</b> - Orbit'21 Asteroid Search Campaign	Mar. 2021
<b>Judge &amp; Mentor</b> - EXODES 2K20 – Intra School Water Rocket Competition	Feb. 2020
<b>Organizing Committee Member</b>	
• JUNIOR ASTRO NIGHT 2021 – Astronomy workshop by SEDS Sri Lanka	Nov. 2021
• ESPER'20 – Annual Inter School Science Quiz Competition	Sep. 2020
• NEEDS FOR NEEDY – book donation camp at Passara Madya Maha Vidyalaya	Dec. 2019
<b>Blood Donor</b>	2020 - Present