

# Report on the use of equipment

## From HCMUNRE

### (December 2021 – September 2023)


#### 1. Description of the equipment


**- Inventory of the equipment:** All equipment was installed in room A 307, faculty of marine resources and environment management, Ho Chi Minh City University of Natural Resources and Environment, 236B Le Van Sy Street, ward 1, Tan Binh District, Ho Chi Minh City, Vietnam.






**- Person who is responsible for installing equipment:** Mr. Nguyen Cuu Long Giang, Director of center for Information and Library, Ho Chi Minh City University of Natural Resources and Environment.

**- Person who is taking charge to manage the lab room:** Dr. Le Thi Kim Thoa, MARE project manager of HCMUNRE.

No.	Equipment	Qty	Function/program installed	Illustrating photos
1	<p><b>Laptop Dell Vostro 5490</b></p> <ul style="list-style-type: none"> <li>- Microprocessor: Intel Core i7 10510U 1.8Ghz Up to 4.9Ghz-8Mb</li> <li>- RAM memory: 8GB, onboard, DDR4, 2666MHz</li> <li>- Hard drive capacity: 512GB M.2 PCIe NVMe Solid State Drive</li> <li>- Fingerprint Sensor: Yes</li> <li>- Monitor: 14.0-inch FHD (1920 x 1080) Anti-glare LED Backlight</li> <li>- Graphics card: NVIDIA® GeForce® MX250 with 2GB GDDR5 graphics memory</li> <li>- Connection: 802.11ac 1x1 WiFi and Bluetooth</li> <li>- Operating system: Windows 10 Home</li> <li>- Battery: 3-Cell, 42 WHr, Integrated battery</li> <li>- Ports: 1Micro SD Media Card Reader (SD, SDHC, SDXC)</li> <li>- 1Headphone/Microphone combination jack</li> <li>- 1 Ethernet RJ-45</li> <li>- 1 USB 2.0</li> <li>- 1 Wedge-Shaped Lock Slot</li> <li>- 1 Power In</li> <li>- 1 HDMI 1.4b</li> <li>- 2 USB 3.1 Gen 1 Type-A</li> <li>- 1 USB 3.1 Gen 1 Type C</li> <li>- Colour: Urban gray</li> </ul>	2 pcs	- For teaching and field trip staff	
2	<p><b>CPU Dell OptiPlex 5070 SFF and Monitor Dell 20" Professional P2018H LED</b></p> <ul style="list-style-type: none"> <li>- Processor: Intel® Core™ i7-9700 (8 Cores /12MB/8T/3.0GHz to 4.8GHz/65W)</li> <li>- Mainboard: Intel Q370 Chipset</li> <li>- Ram: 8GB 2666MHz DDR4 Memory; 2 slots support up to 64GB 2666MHz DDR4 Memory</li> <li>- Hard Drive: 1TB 7200 RPM SATA 6Gb/s (64MB Cache)</li> <li>- Graphics: Intel UHD 630 Graphics with shared graphics memory</li> <li>- Audio: Realtek High Definition Audio Codec (supports multiple</li> </ul>	20 set	- For students and staff teaching, practicing and training.	

<p>streaming)</p> <ul style="list-style-type: none"> <li>- Optical Drive: 8x DVD+/-RW 9.5mm</li> <li>- Ports: 1 USB 3.1 Gen 2 Type-C™ (front); 5 USB 3.1 Type-A (1 front/4 rear); 4 USB 2.0 (2 front/2 rear); 1 RJ-45; 2 Display Port 1.2; 1 UAJ; 1 Line-out; 1 optional Port (VGA/DP/HDMI 2.0b/Serial+PS/2)</li> <li>- Number of Bays (max): 1 x 3.5" hoặc 2 x 2.5" HDD</li> <li>- Expansion Slots: 1 x Half Height PCIe x16; 1 x Half Height PCIe x16 (wired x4); 1 x M.2 for storage (22x80mm or 22x30mm); 1 x M.2 for wireless (22x30mm)</li> <li>- Networking: Integrated Ethernet LAN 10/100/1000</li> <li>- Keyboard: Keyboard Black (English)</li> <li>- Optical Mouse , 200W PSU</li> <li>- Hardware Security</li> <li>- Trusted Platform Module (TPM) 2.0, Chassis lock slot support;</li> <li>- Genuine off-host verification tool, protecting BIOS from attack (authenticate BIOS against comparison with manufacturer's BIOS version via secure cloud environment)</li> <li>- Systems Management Options: Genuine software support for users or IT administrators to download and use for the following jobs: <ul style="list-style-type: none"> <li>- Set BIOS settings through an easy-to-use graphical user interface: <ul style="list-style-type: none"> <li>+ Restrict access to USB ports</li> <li>+ Disable / enable TPM</li> <li>+ Install the Boot order</li> <li>+ Set Auto Recovery in case the BIOS is corrupted</li> <li>+ Export a file of BIOS settings so that the administrator can apply it to other computers as needed</li> </ul> </li> <li>- Allow IT to check, change the computer hardware settings with PowerShell administrative commands</li> </ul> </li> <li>- Device Type: LED-backlit LCD monitor - 20"</li> <li>- Panel Type : TN (Twisted Nematic)</li> <li>- Native Resolution: 1600 x 900 at 60Hz</li> <li>- Contrast Ratio: 1000: 1 (typical)</li> <li>- Color Gamut (typical):84% (CIE 1976), 72% (CIE 1931)</li> <li>- Color Depth: 16.7 Million colors</li> </ul>		
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	<ul style="list-style-type: none"> <li>- Features: USB hub</li> <li>- Aspect Ratio: 16:09</li> <li>- Brightness: 250 cd/m2 (typical)</li> <li>- Response Time: 5 ms (black to white)</li> <li>- Input Connectors: HDMI, VGA, DisplayPort</li> </ul>		
<p>3</p> <p><b>Sony FDR-AXP55 4K camcorder (built-in projector)</b></p> <ul style="list-style-type: none"> <li>- Recording format: XAVC S 4K, XAVC S HD, AVCHD, MP4</li> <li>- Image sensor: 1/2.5 type(7.20mm) back-illuminated Exmor R CMOS Sensor</li> <li>- Still image resolution: 8.29 MP</li> <li>- Internal memory: Flash Memory 64GB</li> <li>- Image processor: BIONZ X</li> <li>- Image stabilization: Balanced Optical SteadyShot w/ Intelligent Active mode(5-axis)</li> <li>- Lens : ZEISS Vario-Sonnar T*</li> <li>- Focus angle of view (35mm conversion): 26.8mm</li> <li>- Aperture : 2.0 - 3.8</li> <li>- Optical zoom: 20x</li> <li>- Clear zoom image: 30x (4K), 40x (HD) (zoom KTS: 250x)</li> <li>- Sound: 2ch (XAVC S), 5.1ch (AVCHD)</li> <li>- Advanced features: High-speed movie recording, High-speed recording, Timelapse recording in 4K format, Golf Shot, Night Shot, Focus Lock, Voice noise reduction</li> <li>- Wifi/NFC : Yes</li> <li>- LCD monitor : Xtra Fine LCD™ display(921,600dots) Wide(16: 9), 3.0 type, touch screen.</li> <li>- Electronic viewfinder : 0.24 type, 1,555,200dots</li> <li>- Recording time: about 75 minutes (XAVC S 4K 30p), about 105 minutes (AVCHD FH)</li> <li>- Compatible memory cards</li> <li>+ XAVC S 4K format (100Mbps): SDXC Memory Card (UHS-I U3 and above)</li> <li>XAVC S 4K (60Mbps): SDXC Memory Card (Class10 and above)</li> <li>XAVC S HD: SDXC Memory Card (Class10 and above)</li> <li>+ AVCHD format, still images: Memory Stick PRO Duo (Mark 2),</li> </ul>	<p>1 pcs</p>	<ul style="list-style-type: none"> <li>- For recording video lecture and field trip</li> </ul>	

	<p>Memory Stick PRO-HG Duo, Memory Stick XC-HG Duo, SD / SDHC / SDXC Memory Card (Class 4 and above)</p> <ul style="list-style-type: none"> <li>- Size: about 77mm x 80.5mm x 166.5mm</li> <li>- Weight: about 565g (excluding batteries)</li> <li>- Accessories: NP-FV70 battery, AC Adapter, HDMI (mirco) cable, Integrated USB Cable connection, Power cord, SF-M64 / T2 memory card</li> </ul>			
4	<p><b>Cisco AIR-AP2802E-S-K9 802.11ac W2 AP w / CA Wifi transmitter</b></p> <ul style="list-style-type: none"> <li>- Integrated antennas : Flexible radio (either 2.4 GHz or 5 GHz)</li> <li>- 2.4 GHz, gain 4 dBi, External antenna, omnidirectional in azimuth</li> <li>- 5 GHz, gain 6 dBi, External directional antenna, elevation plane beamwidth 90°</li> <li>- Dedicated 5-GHz radio</li> <li>- 5 GHz, gain 5 dBi, External antenna, omnidirectional in azimuth</li> <li>- Interfaces: 2x100/1000BASE-T autosensing (RJ-45)</li> <li>- Management console port (RJ-45)</li> <li>- USB 2.0 (enabled via future software)</li> <li>- Indicators: Status LED indicates boot loader status, association status, operating status, boot loader warnings, boot loader errors</li> </ul>	2 pcs	- wifi conection to other device and access the lab system when necessary.	 

**2. The use of equipment**

After successfully installing equipment equipped for the project, the computer lab officially went into operation in January 2022.

**2.1. Sony FDR-AXP55 4K camcorder (built-in projector)**



This equipment has been used for field trips, meetings, recording videos.

The frequency of using this device within the framework of the MARE project is an average of 3 times/month.

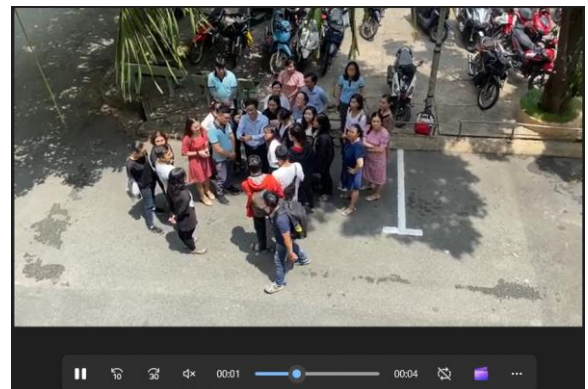


However, in order to effectively use the invested equipment, the Faculty of Marine Resources Management has shared this equipment with other departments and Faculty within HCMUNRE to use for research, teaching and learning purposes.

Specifically, the departments and faculties where this device is shared are as follows:

- Faculty of Environment
- Faculty of Meteorology, Hydrology and Climate Change
- Faculty of Water Resources
- Faculty of Land Management
- Faculty of Geodesy, Cartography and GIS
- Faculty of Geology and Mineral Resources
- Faculty of Information Systems and Remote Sensing
- Center for Information and Library
- Department of Admissions consulting
- Department of Science, Technology and Foreign Relations
- Department of Testing, Quality Assurance and Education Inspection

**Some photos/ videos were taken from this equipment to serve as teaching and learning materials**





## 2.2. Laptop Dell Vostro 5490



These two laptops are used for teaching, research and field trip purposes.

Dr. Thoa uses this laptop very day in her project work, teaching and doing research. The other laptop is used for guest lecturer, field trip, project meeting, seminar/ workshop and teaching in the computer lab.

## 2.3 Computer lab (20 sets of desktops installing in the computer lab)



This computer lab is used for practicing in any courses having practice assignments/ sections.

The computer lab prioritizes serving students of the Faculty of Marine Resources Management, especially those courses designed to be studied online within the framework of the MARE project.

Students are allowed to use the computer lab for practice exercises, reading assignment, doing quizzes, access to the e-library. The Faculty of Marine Resources Management has set up a fixed schedule of 2 practice sessions/week for students to come to the computer lab to study when needed.

The schedule for using the computer lab for students slightly change based on the schedule for each semester.

The subjects that use the computer lab from January 2022 and the frequency of use of the subjects are as follows:

Course's name	Timetable	Start and end date
<a href="#"><u>Marine Ecology - 4.5 ECTS</u></a>	Monday 10 January 2022, 6:30 – 11:30 am Thursday 13 January 2022, 12:30 – 17:30 pm	10 January – 2 May 2022
	Monday 9 January 2023, 12:30 – 17:30 pm Wednesday 11 January 2023, 12:30 – 19:30 pm	9 January – 1 May 2023



<u><a href="#">Port and marine constructions - 3ECTS</a></u>	Monday 10 January 2022, 12:30 – 17:30 pm Thursday 13 January 2022, 6:30 – 11:30 am	13 January – 31 March 2022
	Monday 9 January 2023, 6:30 – 11:30 am Wednesday 11 January 2023, 6:30 – 11:30 am	11 January – 29 March 2023
<u><a href="#">Marine resources and environment management- 3 ECTS</a></u>	Friday 16 September 2022, 12:30 – 17:30 pm	16 September – 2 December 22
	Monday 11 September 2023, 6:30 – 11:30 am	11 September – 27 November 23
<u><a href="#">Fishery oceanography -3 ECTS</a></u>	Tuesday 13 September 2022, 12:30 – 17:30 pm	13 September – 29 November 22
	Thursday 12 January 2023, 6:30 – 11:30 am	12 January – 28 March 2023
<u><a href="#">River sea interactions – 4.5 ECTS</a></u>	Wednesday 14 September 2022, 6:30 – 11:30 am	14 September 22– 4 January 23
	Thursday 14 September 2023, 6:30 – 11:30 am	14 September – 28 December 23
<u><a href="#">Control of marine pollution – 3ECTS</a></u>	Tuesday 13 September 2022, 6:30 – 11:30 am	12 September – 28 November 22
	Tuesday 10 January 2023, 6:30 – 11:30 am	10 January – 25 March 2023
<u><a href="#">Modelling marine environment – 4.5 ECTS</a></u>	Friday 16 September 2022, 6:30 – 11:30 am	16 September 22 – 7 January 23
	Tuesday 12 September 2023, 12:30 – 17:30 pm Wednesday 13 September 2023, 6:30 – 11:30 am	12 September 23 – 2 January 24

<a href="#"><u>Map digitization- 4,5ECTS</u></a>	Monday 12 September 2022, 6:30 – 11:30 am Thursday 15 September 2022, 6:30 – 11:30 am	15 September 22 – 5 January 23
	Wednesday 13 September 2023, 12:30 – 17:30 pm Friday 15 September 2023 6:30 – 11:30 am	13 September 23 – 3 January 24
<a href="#"><u>GIS application in marine resource management -4,5 ECTS</u></a>	Thursday 12 January 2023, 12:30 – 17:30 pm Friday 13 January 2023 12:30 – 17:30 am	12 January – 4 May 2023
<a href="#"><u>Physical Geography of the East Sea- 3 ECTS</u></a>	Wednesday 14 September 2022, 12:30 – 17:30 pm	14 September – 20 November 22
	Thursday 14 September 2023, 12:30 – 17:30 pm Tuesday 12 September 2023, 6:30 – 11:30 am	14 September – 20 November 23
<a href="#"><u>Fundamentals of remote sensing and GIS- 3 ECTS</u></a>	Monday 12 September 2022, 12:30 – 17:30 pm Thursday 15 September 2022, 12:30 – 17:30 pm	12 September – 18 November 22
	Monday 11 September 2023, 12:30 – 17:30 pm Friday 15 September 2023 12:30 – 17:30 pm	11 September – 17 November 23
<a href="#"><u>Remote sensing application- 4,5 ECTS</u></a>	Friday 13 January 2023 6:30 – 11:30 am Tuesday 10 January 2023, 12:30 – 17:30 pm	13 January – 5 May 2023

Some photos taken in the computer lab

