

**TECHNICAL EXCHANGE IN BUILDING, OPERATING AND MANAGING E-LEARNING ROOM**

Time: 10h00-11h30, 8/6/2021

**PROGRAM AGENDA**

**1. Objectives**

The technical exchange aims to help focal point staff in managing e-learning/studio room of the colleges to:

* Understand the purpose and technical specifications of 36 digital devices, software and infrastructure of an e-learning/studio room (See the Appendix on page 2),
* Share hand-on experience in the process of installing, operating, and managing the e-learning/studio room,
* Introduce, learn, and transfer the techniques of how to produce a lightboard for an e-learning/studio room by LILAMA 2.

**2. Agenda**

| **Time** | **Topic** | **Person(s) in charge** |
| --- | --- | --- |
| 10:00-10:05 | Event purpose and GIZ’s supporting activities associated with the e-learning room for 11 partner colleges | Mr. Phạm Xuân Hoàn – GIZ Programme Officer |
| 10:05-10:30 | Explain the purpose and technical specifications of 36 digital devices, software and infrastructure of an e-learning/studio room,  Live demo video of the college’s equipment | Mr. Bùi Quang Khải – Nha Trang College |
| 10:30-10:40 | Share experience in installing, operating, and managing e-learning/studio room  Live demo video of the college’s equipment | Mr. Nguyễn Đức Tài – An Giang College |
| 10:40-10:50 | Introduce the lightboard for e-learning/studio room manufactured by LILAMA 2 | Dr. Christian Hoffmann |
| 10:50-11h30 | Q&A, discussion, experience sharing about activities of an e-learning room/studio room | Mr. Phạm Xuân Hoàn coordinates |

**LIST OF EQUIPMENT OF AN E-LEARNING/STUDIO ROOM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Equipment** | **Specification (if any)** | **Unit** | **Quantity** |
|
|  | Table and chair for teachers |  | Set | 1 |
|  | Desk and chair for students | 2 students/desk | Set | 8 |
|  | Table and chair for editor and technician | Tailor-made | Set | 1 |
|  | White mica board (using markers) |  | Piece | 1 |
|  | Sound card |  | Piece | 1 |
|  | On-desk microphone stand TS-10 |  | Piece | 1 |
|  | Soundtest speaker |  | Pair | 1 |
|  | Microphone signal wire |  | Meter | 30 |
|  | Jack canon |  | Piece | 2 |
|  | Soundproof floor carpet |  | Meter | 30 |
|  | Tấm cách âm dán tường (Phòng E-Learning/Studio) |  | Meter | 150 |
|  | Soundproof wall panels (E-Learning Room/Studio) |  | Meter | 70 |
|  | Available room | 50-80m2 | Square meter |  |
|  | Set of professional shooting room toolkits (8 lightbulbs 2640w) | Kino 6 lapms: 8 pieces Sconce L2900: 2 pieces Hand pulling lamp: 6 pieces Bar 4m: 2 pieces Bar 3m: 3 pieces Double wheel: 6 pieces  Single wheel: 12 pieces Iron bar: 6 pieces | Set | 1 |
|  | Studio backdrop | Cloth | Meter | 40 |
|  | Anti-vibration handle (Gimbal stabiliser) | - Compact 3 axis handheld, underslug mode - Rotate range: Yaw (Pan): 360°; Pitch (Tilt): 314° (-132 to 182°); Roll: 314° (-67 to 247°) - Intelligent autotune; Quick release system Arca Swiss/Manfrotto - Control wheel for focus & zoom - Interchargeable batteries | Piece | 1 |
|  | Handy camcorder | - Imaging type: 1.0 type (13.2mm x 8.8mm) CMOS sensor - 20MP total / 14.2MP effective - UHD 4K (3840 x 2160) 30p; HD 120 fps - 12x optical zoom, 62mm filter - Omni-directional stereo electret condenser built-in microphone - Iris: F2.8- F4.5 auto/manual selectable - Two SD card slots  - Wi-Fi +NFC | Piece | 1 |
|  | SD card for handy camcorder | - Capacity: 128GB - Read: 170MB/s; Write: 90MB/s | Piece | 3 |
|  | Video tripod | - Leg section: 3; Max. height: 1515mm; Weight: 3.29kg - Aluminium alloy build - Max. load: 5 kg - Bowl-shaped hydraulic head with level | Piece | 1 |
|  | Digital AF/AE single-len camera with built-in flash | - Image sensor: CMOS, 26.2 megapixel - Image format: 35.9 x 24mm full frame - File size: from 1600x1600 to 6240x4160 - Auto focus (45 điểm) & white balance, live view function - Memory card support: SDHC, SDXC, SD - Video shooting: file format MP4, (1920x1080) 24fps-60 fps - LCD monitor: TFT color, liquid-crystal, wide 3inch - ISO: 100-40000 - WIFI + NFC + Bluetooth | Piece | 1 |
|  | Camera len | - EF 24-105mm F/4L IS USM - Focus adjustment: AF with full time manual - Closest focusing distance: 1.5ft/0.45m - Air sphere coating & 10 blades circular aperture - Filter size: 77mm diameter | Piece | 1 |
|  | Vmix Pro 4K |  | License | 1 |
|  | Laptop | - CPU: core i5 (2.4GHz, 8MB) - Screen: 15.6" FHD (1920 x 1080), non-touch - RAM: 8GB DDR4 - Graphic: min. 4GB GDDR5 - Storage: min. 512GB SSD M.2 NVMe - Operating system: Windows 10 Home SL 64-bit  - Battery: min. 3 cell 51 Wh - Carry bag & wireless mouse | Piece | 3 |
|  | Desktop (for filming production) | - CPU INTEL® CORE™ I7-8700K (12M CACHE, UP TO 4,70 GHz) -Mainboard MSI MPG Z390 GAMING EDGE AC, supported NVME - KIT 32GB RAM 2X16GB DDR4 BUS 3000 T-FORCE DELTA RGB - Card VGA MSI RTX 2070 SUPER™ VENTUS OC 8GB - SSD M.2 250G Samsung EVO 970 PLUS (MZ-V7S250BW) - SSD 1 TB -NVME - Powre Coolermaster 750W 80 PLUS BRONZE V2  - License Windows 10 Pro, 64bit | Piece | 1 |
|  | Monitor (for filming production) | - Size: min. 27" - Resolution: Full HD 1080p, SuperClear ISP - Bluelight filter & anti-flicker - Connection: HDMI, DisplayPort, VGA - Ultra-thin border design and metal triangle brackets | Piece | 2 |
|  | Softwares | Windows Pro 64bit for 2 laptops and 1 PC | License | 4 |
|  | SSD Drive 2TB | Capacity 2 TB, dimension 2.5", USB 3.0 | Piece | 1 |
|  | HDMI cable | 5 meters | Cable | 1 |
|  | USB computer headset | - USB-A compatible, works with MacOS and Windows - USB plug-and-play, digital stereo sound & noise cencelling mic - Cable length 1.8m; 20 Ohms input impedance, headphone sensitivity (115dB +/-3), microphone sensitivity (-42dBV/Pa +/-3) | Piece | 4 |
|  | Conference camera | - Full HD 1080p video calling (up to 1920 x 1080 pixels) - Camera field of view: 78 degree-diagonal, 70 degree- horizontal; 43 degree- vertical; 1.2 x HD Zoom  - Integrated ful duplex speakerphone with echo & noice cancellation - Omnidirectional microphone with 2.4m diameter range - 3m range remote control | Piece | 1 |
|  | Document camera | - CMOS 1/2.7 inch sensor  - Effective pixels minimum 2MP (1,920 x 1,080) - Frames per Second minimum (30) - Digital zoom minimum 10X - Optical zoom minimum 12X - Focus: Auto - Resolution minimum Full HD 1080p - Connection minimum HDMI x 1, USB, minimum VGA x 1 | Piece | 1 |
|  | Wireless multi-function laser printer: Print - Copy - Scan | - A4 laser color printer, printing & copying speed: 21 page per minute - ADF (automatic document feeder): 50 sheets - Scan format: PDF, JPG - Connectivity: USB 2.0, RJ-45, Wifi - Input tray: 01 tray \* 250 sheets | Piece | 1 |
|  | Mixer | - Input source: 220v/50-60Hz  - 8 +2 input channels  - Built in 24 bit Lexicon digital effects processor  - Tap Tempo and FX function mode setting effects  - 1 FX send per channel  - 2 configurable Aux outputs  - 2 stereo inputs  - Stereo Mix output  - Track input playback with level control  - Globally switch to +48 V Phantom power  - GB30 Mic preamp  - 100Hz HPF  - 3-band EQ with mid-band forward mono input  - 3-band EQ stereo input | Set | 1 |
|  | Recording microphone (lavalier) | - Operating frequency: 60Hz-15KHz±3dB - Signal/ Noise: 74dB SPL - Audio input connection: 3.5mm mini jack - Operation radius: 100M - Required power supply: 3.0V DC - Electric used: 3.3V/110 mA - Receiver: 3.3V/100 mA - Battery longevity: ~ 8 hours | Set | 1 |
|  | Microphone (oriented – on desk) | - Frequency response: 30Hz-20,000Hz - Sensitivity: -33dB ± 2dB back 1V / Pa @ 1kHz - S / N Ratio: 80dB or above - Battery power supply 1.5V or phantom 48V - Length: 38cm - Output connection: 3-pin XLR | Piece | 1 |
|  | TV | 65-inch TV + height-adjustable stand (Online workshop room) | Piece | 1 |