



Minhchau H. Vu, B.S.
Chief Engineer/Production Manager

Expertise

Chief design engineer for current, wave, and tide gauge systems.

Qualification Summary (Titles)

- Designed the Solid State Recorder (SSR) by utilizing SRAMS chip set to replace the old style tape recorder of all Sea Data wave, tide and current gauges
- Redesigned Inverted Echo-Sounder (IES)
- Designed SeaPac product lines: SP2000 Current Meter; SP 2100 Directional Wave, Tide, and Current Meter; SP 2200 Wave and Tide Gauge, and SP 2300 Sediment Transport Autonomous Recording (STAR)
- Redesigned the Flash/SSR using Flashcard that replaced the old style SSR
- Computer language skills in Basic, Pascal and Turbo Pascal, C, C++ assembly
- Familiar with MS DOS, UNIX, OS/2, Windows and Win/NT operating systems
- Familiar with application software packages for analysis and display using MatLab and Visual Basics
- Familiar with software development systems using CA-Realizer
- Interfacing real-time data acquisition systems with telemetry including packet radio/ modem, spread-spectrum radios, cell and satellite phones
- Embedded micro-controllers skills in 6805, 8085, 8031, 8051 and 68000 family

Education

B.S., Computer Engineering –
1992, Boston University

Work Experience

1992-Present Woods Hole Group, Inc.
1990-1992 Pacer Systems, Inc.

Key Projects

Nearshore Data Collection System, Stuart, FL, Martin County Board of County Commissioners - Design Engineer.

Designed real-time wave, tide, and current monitoring systems that were deployed in 30 ft of water in the Atlantic Ocean off Stuart Public Beach in Martin County, FL.

Directional Wave, Tide, and Current Measurement System, Taichung, Taiwan, Institute of Harbor and Marine Technology - Design Engineer.

Designed real-time wave, tide, and current monitoring systems that were deployed in offshore locations near the approaches to the harbors. Our systems consist of an elastic-moored spar buoy and a bottom mounted SeaPac 2160 directional wave and tide gauge with real-time telemetry outputs.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), Narragansett Bay, RI, - Field Technician

Responsible for the operation and maintenance of the Narragansett Bay PORTS. Duties included on-site service and maintenance, and reporting. Knowledgeable with PORTS measurement systems, including current meter, water level, and meteorological stations and data telemetry and management.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), Delaware River & Bay, DE – Field Technician

Serve as PORTS technical assistant to Local Operator, Ned Burger, and Delaware Field Office. Assist on an as-needed basis with technical support and reporting tasks, including field support for routine operation and maintenance activities and emergency service.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), Chesapeake Bay, MD – Field Technician

Serve as PORTS technical assistant to Local Operator, Ned Burger, and Delaware Field Office. Assist on an as-needed basis with technical support and reporting tasks, including field support for routine operation and maintenance activities and emergency service.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), New York/New Jersey Harbor – Field Technician

Serve as PORTS technical assistant to Local Operator, Carl Johnsen. Assist on an as-needed basis with technical support and reporting tasks, including field support for routine operation and maintenance activities and emergency service.

Wave Measurement Program, Little Bay, Monserrat, Mouchel Consulting, Inc. - Design Engineer

Designed real-time oceanographic data acquisition system to monitor waves, tide, and currents in Little Bay, located on the northwest coast of the Caribbean island of Monserrat. The system consists of a SeaPac 2100 wave, tide, and current meter deployed in 15 meters water depth about 1 km offshore.

Real-Time Monitoring System, Port of Curacao, Curacao Port Authority - Design Engineer

Designed a WHISL SeaPac 2100 directional wave and tide sensor, which also measures currents, and a WHISL SeaPac 2000 current meter.

Real-Time Current Monitoring System Channel Approaches, Long Beach, CA, Jacobsen Pilot Services, Inc. - Design Engineer

Designed a real-time system to monitor currents in the approaches to the main shipping channel at Long Beach Harbor.

Key Projects (continued)

Deep Water Rig Instrumentation System, Makassar Strait, Indonesia, Unocal Corporation - Design Engineer

Designed, built, and tested, a real-time environmental monitoring systems for the Sedco 601 and Sedco 602 anchored drill rigs, operating in the Makassar Strait region, east of Borneo, Indonesia. Each of two identical systems consist of a downward-looking 75 kHz Broadband Acoustic Doppler Current Profiler suspended below the surface, together with an upward-looking RDInstruments Workhorse 300 kHz ADCP and a non-directional wave gauge. A meteorological system measuring wind, speed and direction, air temperature, and barometric temperature is also included in each system.

Real-Time Data Acquisition and Telemetry System, Oahu, HI, Tesoro Hawaii - Design Engineer

Designed a real-time current and wind monitoring system that consists of a real-time data acquisition and telemetry system, which is located on the Single-Point Mooring (SPM) offshore of Tesoro Hawaii, a Base Station display and archiving system, which is located in Tesoro's office in Honolulu, and a Mooring Master display unit that is contained in a waterproof portable case and is used by the pilots.

Physical Oceanographic Real-Time System (PORTS), Tampa, FL, University of South Florida - Design Engineer

Designed and built a real-time system to collect directional wave, current, tide height, and meteorological data from multiple sites for the NOAA PORTS program. We provided four Acoustic Doppler Current Profilers (ADCPs) that are bottom-mounted near shipping lanes and cabled to Remote System Managers (RSMs) located on shore-based or offshore towers at Old Port Tampa, Manatee Channel, Sunshine Skyway Bridge and Egmont Key, FL. Several of these stations are also equipped with meteorological systems and visibility sensors.

Lake Current Monitoring System, Darlington and Pickering, Ontario, Canada, Ontario-Hydro - Design Engineer

Designed, built, and tested, a pair of identical real-time lake current monitoring systems for the Canadian Nuclear Utility Company Ontario-Hydro.

Meteorological and Oceanographic Monitoring System, Seoul, Korea, Seoul National University - Design Engineer

Designed and built a meteorological and oceanographic monitoring system that provides real-time monitoring of wind speed and direction, air and water temperature, air pressure, tides, and current profiles. The system consists of a surface meteorological buoy, a subsurface Acoustic Doppler Current Profiler (ADCP), and a tide station.

Tide Measurement System, Naval Oceanographic Office - Design Engineer

Designed and constructed 5 portable tide measurement systems (TMS) for real-time water level measurements for use by the Navy in coastal surveys worldwide.

Texas Automated Buoy System (TABS), Real-Time Environmental Data Buoy, Gulf of Mexico, Geophysical and Environmental Research Group (GERG), Texas A&M University - Design Engineer

Designed a real-time data acquisition and telemetry system that provides near-surface current, meteorological, and other environmental information on the continental shelf.