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Specialty: Electronics, Geophysics Instrumentation, Seismology.

[Education]

- B. S., 1997, Electronic Engineering, National Taiwan University of Science and Technology
- M. S., 2000, Institute of Geophysics, National Central University
- Ph.D., 2009, Institute of Geophysics, National Central University

[Experiences]

- 1985/7 ~1993/12: Electronic Technician, IES-Academia Sinica
- 1994/1 ~ 2010/ 12: Electronic Engineer
- 2005/4 ~ 2005/12: Woods Hole Oceanographic Institution Geology & Geophysics Department Guest Investigator
- 2010/12 ~2015/08: Assistant Research Scientist
- 2015/08 ~2020/05: Associate Research Scientist
- 2020/06~present: Senior Research Scientist

[Patents]

(1) Leveling System for Compact Seismic Sensors

Patent number: TW Issued No: I 414807

Date of grant: 2013-11-11, Scheduled expiry date: 2031-02-23

Inventor: Chau-Chang Wang, Po-Chi Chen, Jia-Pu Jang, Jung-Li Tien, Ban-Yuan Kao, **Ching-Ren Lin**.

Fields of Application: Earthquake monitoring, underwater fault investigation, underwater resources (petroleum, gas, methane hydrates, among others) exploration, and tsunami monitoring.

Reference web site: http://otl.sinica.edu.tw/index.php?t=9&group_id=89&article_id=1185

(2) Beacon system capable of positioning coordinates

Patent number: TW Issued No: M 462924

Date of grant: 2013-10-01, Scheduled expiry date: 2013-05-20

Inventor: **Ching-Ren Lin**, Hsu-Kuang Chang, Jia-Pu Jang.

Abstract : A kind of beacon that integrates Radio, GPS, and Flash functions has become a new type, "Flash beacon with wireless GPS" . It is mounted on the underwater device normally. The beacon will be turned on when it floats up to the surface within 10 meters, then send out its GPS position via a radio signal, and a high-illumination LED will also turn on in a dark environment. The operator can receive

the beacon's position by decoded radio signal and see a flashlight at dark environment that is generated from the beacon. It could be deployed more than 6000 meters.

Fields of Application:

- (i) Water surface position indicator for cable free underwater device.
- (ii) Water device position indication.
- (iii) Longline fishing buoy location guide.
- (iv) Flow field analysis of ocean currents.
- (v) Velocity analysis of river water flow.

Reference website: http://otl.sinica.edu.tw/index.php?t=9&group_id=89&article_id=1337

(3) Switch device

Patent Status : TW Issued No: M 487518

Date of grant: 2014-10-01, Scheduled expiry date: 2014-03-12

Inventor: **Ching-Ren Lin**, Jia-Pu Jang.

Abstract : A kind of underwater power switch which action by water pressure. This device could be installed on underwater instruments for controlling electric power ON and OFF when those instruments float near the surface, 10 – 30 m. The maximum deployment range is 10,000 meters deep in the water.

Fields of Application:

- (i) Underwater device position indicator power control.
- (ii) Underwater device deep end power control.

Reference web site: http://otl.sinica.edu.tw/index.php?t=9&group_id=89&article_id=1399

[Publications]

Jang, Jia-Pu., Ching-Ren Lin*, Chau-Chang Wang, Po-Chi Chen, Hsu-Kuang Chang, Wen-Tzong Liang, Ming-Yuan Cho, Dec. 2025, "Design and Evaluation of the Gimbal System of Yardbird-BB Ocean Bottom Seismograph", *IEEE JOURNAL OF OCEANIC ENGINEERING*, 1558-1691, 1-14. (EI) (IF: 3.8; SCI ranking: 25.7%,34.3%,31.3%,11.3%)

Lalit Arya, Shu-Huei Hung*, Ramakrushna Reddy, Ban-Yuan Kuo, Ching-Ren Lin, Pei-Ying Patty Lin, Shuichi Kodaira, Yasushi Ishihara, Nov. 2025, "Microseisms and Their Relationship With Solid Earth, Ocean, and Atmospheric Dynamics: Insights From Ocean Bottom Seismometer Observations in the Northern Okinawa Trough-Ryukyu Arc-Trench System", *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*, 130(2), 1-25. (SCIE) (IF: 3.9; SCI ranking: 13.8%)

Fu, Ching-Chou*, Hau-Kun Jhuang, Yi-Ying Ho, Tsung-Che Tsai, Lou-Chuang Lee, Cheng-Horng Lin, Ching-Ren Lin, Vivek Walia, and I-Te Lee., Jan. 2025, "A Study of Lithosphere-Ionosphere Seismic Precursors from Detecting Gamma-Ray and Total Electron Content Anomalies Prior to the 2018 ML6.2 Hualien Earthquake in Eastern Taiwan", *Remote Sensing*, 17(2):188., 1-18. (SCIE) (IF: 4.2; SCI ranking: 32%,14.9%,27.6%,37.1%)

{林慶仁*、張家溥、陳柏棋·2025年6月·〈新型 Yardbird-BB OBS 感震器平衡機構的效能評估〉·共29頁·發表於2025台灣地球科學聯合學術研討會之中華民國地球物理學會及中華民國地質學會年會暨學術研討會·台北市南港展覽館：中華民國地球科學學會·2025-06-16~2025-06-19。}

林慶仁*, Jun. 2025, "海床地振動對於接近海床的水流速度之影響", 113 pages, paper presented at 2025 台灣地球科學聯合學

術研討會之海洋科學年會暨國科會海洋學門成果發表, 台北市南港展覽館: 中華民國地球科學學會, 2025-06-16 ~ 2025-06-19.

Lin, Ching-Ren*, Apr. 2025, "Data Collection and Applications of Seafloor Water current Velocity", paper presented at *2025 EGU*, Vienna, Austria: European Geosciences Union, 2025-04-27 ~ 2025-05-02.

Lin, Ching-Ren*, Mar. 2025, "Preliminary Observational Results of a High-Precision Three-Component Magnetometer in the Tatun Volcano Area, Taiwan", paper presented at *International Conference For Coupling of Earth's Spheres (ICES)*, 成都: 中國成都理工大學, 2025-03-01 ~ 2025-03-04.

Lin, Ching-Ren*, Oct. 2024, "Mechanism Design of Seafloor Current Meter (SCM) with Broadband OBS and Data Analysis in the Northeastern offshore Taiwan", *Annals of Limnology and Oceanography*, 9(1), 009-020. (SCIE)

Chen, Kai-Xun*, Ban-Yuan Kuo, Ting-Jun Lin, Pei-Ying Patty Lin, Yuancheng Gung, Eh Tan, Shuichi Kodaira, Yasushi Ishihara, Mamoru Nakamura, Ryuta Arai, Fang-Yi Lee, Shu-Huei Hung, Kate Huihsuan Chen, Ching-Ren Lin, and Chau-Chang Wang, Oct. 2024, "Shear-dominant continental rifting in northern Ryukyu revealed by ambient noise tomography", *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*, 129 (11), 1-15. (SCIE) (IF: 3.9; SCI ranking: 13.8%)

Ching-ren Lin*, Yi-Chun Liao, Chau-chang Wang, Ban-Yuan Kuo, Hsin-Hung Chen, Jia-pu Jang, Po-chi Chen, Hsu-kuang Chang, Feng-Sheng Lin, Kun-Hui Chang, Feb. 2024, "Development and evaluations of the broadband ocean bottom seismometer (Yardbird-BB OBS) in Taiwan", *TERRESTRIAL ATMOSPHERIC AND OCEANIC SCIENCES*, 35, 4 (2024), 1-12. (SCIE) (IF: 0.8; SCI ranking: 93.5%,97.9%,90.3%)

林慶仁*, 郭本垣, 張坤輝, May. 2024, "自製觀測儀器的優勢與挑戰", paper presented at *113 年地質與地球物理學術研討會*, 花蓮 國立東華大學: 中華民國地球物理學會與中華民國地質學會, 2024-05-07 ~ 2024-05-08.

Chin-Heng Yang*, Ching-Ren Lin, Yuancheng Gung, Feng-Sheng Lin, and Kun-Hui Chang, Apr. 2024, "The Design of a Low-Angle Active Leveling Device for Short-Period Ocean Bottom Seismometer", paper presented at *The EGU General Assembly 2024*, Austria Center Vienna: The European Geosciences Union, 2024-04-14 ~ 2024-04-19.

Lin, Ching-Ren*, Ya-Ju Hsu, Feng-Sheng Lin, and Kun-Hui Chang, Apr. 2024, "Design, Testing, and Preliminary Data Analysis of the Seafloor Absolute Pressure Gauge.", paper presented at *The EGU General Assembly 2024*, Austria Center Vienna: The European Geosciences Union, 2024-04-14 ~ 2024-04-19.

周憲德*, 邱奕旭, 許家銘, 黃鈞軒, 林慶仁, 郭本垣 · 2023 年 3 月 · 〈礫石型土石流之觸發降雨特性與監測訊號判釋〉 · 《中華水土保持學報》 · 54(1), 16-26 ° (Others)

Ching-Ren Lin*、Feng-Sheng Lin, Kun-Hui Chang, Ban-Yuan Kuo, Jul. 2023, "Changes in temperature, pressure, and flow velocity of seawater near seabed caused by typhoon.", paper presented at *20th Annual Meeting AOGS2023*, 新加坡: Asia Oceania Geosciences Society, 2023-07-30 ~ 2023-08-04.

林慶仁*, 林豐盛, 張坤輝, 郭本垣 · 2023 年 5 月 · 〈深海型寬頻 OBS 載台的改良設計〉 · 共 113 頁 · 發表於 112 年地質與地球物理學術研討會 · 桃園市龍潭區: 中華民國地球物理學會與中華民國地質學會 · 2023-05-17 ~ 2023-05-18 °

陳又嘉*, 林慶仁, 林豐盛, 張坤輝, 林日白, 郭本垣 · 2023 年 5 月 · 〈淺海型 OBEM 的研發及校驗測試〉 · 共 114 頁 · 發表於 112 年地質與地球物理學術研討會 · 桃園市龍潭區: 中華民國地球物理學會與中華民國地質學會 · 2023-05-17 ~ 2023-05-18 °

楊金恒*, 林慶仁, 張坤輝, 陳又嘉, 龔源成 · 2023 年 5 月 · 〈海 AIS 船舶自動識別系統在深海儀器的測試與應用〉 · 共 300 頁 · 發表於 2023 年海洋科學年會暨科技部海洋學門成果發表會 · 台中市: 中華民國海洋學會 · 2023-05-03 ~ 2023-05-05 °

林慶仁*, 林豐盛, 張坤輝, 許雅儒, 李昕旻 · 2023 年 5 月 · 〈海床絕對壓力計的設計、測試與初步資料分析〉 · 發表於海

床絕對壓力計的設計、測試與初步資料分析，台中市：中華民國海洋學會，2023-05-03 ~ 2023-05-05。

Ching-Jer Huang*, Hsin-Yu Chen, Chung-Ray Chu*, Ching-Ren Lin, Li-Chen Yen, Hsiao-Yuen Yin, Chau-Chang Wang, Ban-Yuan Kuo, Nov. 2022, “Low-Frequency Ground Vibrations Generated by Debris Flows Detected by a Lab-Fabricated Seismometer”, *Sensors*, 2022, 22, 9310, 1-26. (SCIE) (IF: 3.4; SCI ranking: 31.4%,38%,36.5%)

Sze Ling Ho, Jia-Kang Wang, Yu-Jou Lin, Ching-Ren Lin, Chen-Wei Lee, Chia-Hsin Hsu, Lo-Yu Chang, To-Hsiang Wu, Chien-Chia Tseng, Hsiao-Jou Wu, Cédric M. John, Tatsuo Oji, Tsung-Kwei Liu, Wen-Shan Chen, Peter Li, Jiann-Neng Fang, Jih-Pai Lin*, May. 2022, “Changing surface ocean circulation caused the local demise of echinoid *Scaphechinus mirabilis* in Taiwan during the Pleistocene–Holocene transition.”, *SCIENTIFIC REPORTS*, 12, 8204, 1-9. (SCIE) (IF: 3.8; SCI ranking: 29.2%)

林慶仁*、林豐盛、梁文宗、李文蕙、郭本垣, Jun. 2022, “寬頻海底地震儀地震感應器底座的設計與背景信號分析”, paper presented at *111 年地質與地球物理學術研討會*, 台北市：中華民國地球物理學會與中華民國地質學會, 2022-06-07 ~ 2022-06-09.

林慶仁*、林豐盛、張坤輝、郭本垣, Jun. 2022, “颱風引起之海床海水溫度、壓力、流速變化”, paper presented at *2022 年海洋科學年會暨科技部海洋學門成果發表會*, 台北市：中華民國海洋學會, 2022-06-07 ~ 2022-06-09.

Chu-Fang Yang*, Wu-Cheng Chi, Hans van Haren, Ching-Ren Lin, Ban-Yuan Kuo, Dec. 2021, “Tracking deep-sea internal wave propagation with a differential pressure gauge array.”, *SCIENTIFIC REPORTS*, 11, 23311 (2021), <https://doi.org/10.1>. (SCIE) (IF: 3.8; SCI ranking: 29.2%)

Chieh-Hung Chen*, Yang-Yi Sun, Li-Ching Lin, Peng Han, Huai-Zhong Yu, XueMin Zhang, Chi-Chia Tang, Chun-Rong Chen, Horng-Yuan Yen, Cheng-Horng Lin, Jann-Yenq Liu & Ching-Ren Lin, Jun. 2021, “Large air pressure changes triggered by P-SV ground motion in a cave in northern Taiwan”, *SCIENTIFIC REPORTS*, 11, 12850 (2021), 11. (SCIE) (IF: 3.8; SCI ranking: 29.2%)

Ching-ren Lin*, Ban-Yuan Kuo, Feng-Sheng Lin, Kun-Hui Chang and Chi-wei Lee, Dec. 2021, “Mechanism design and data analysis offshore NE Taiwan of seafloor Current Meter (SCM) with broadband OBS.”, paper presented at *AGU Fall Meeting 2021*, New Orleans, LA &vOnline Everwhere: American Geophysical Union, 2021-12-13 ~ 2021-12-17.

林慶仁*、林豐盛、張坤輝、許雅儒、李昕旻, Nov. 2021, “海床絕對壓力計的測試及初步資料分析”, 93 pages, paper presented at *110 年地質與地球物理學術研討會*, 台北市：中華民國地球物理學會與中華民國地質學會, 2021-11-22 ~ 2021-11-24.

林慶仁*、郭本垣、王兆璋、陳柏棋、張家溥、蕭毓宏、張坤輝、林豐盛、李奇章、許雅儒·2021年4月·〈海底觀測儀器的研發與資料應用〉·共19頁·發表於2021年海洋科學年會暨科技部海洋學門成果發表會·澎湖：中華民國海洋學會·2021-04-28 ~ 2021-04-30。

林慶仁*、林豐盛、張坤輝、郭本垣, Nov. 2020, “海底水流計的機構設計與初步資料分析”, paper presented at *中華民國地球物理學會與中華民國地質學會109年年會暨學術研討會*, 台北市 松山文創園區：中華民國地球物理學會與中華民國地質學會, 2020-11-17 ~ 2020-11-18.

林慶仁*、林豐盛、張坤輝、許雅儒、李昕旻, Nov. 2020, “海底絕對壓力計的研發”, paper presented at *中華民國地球物理學會與中華民國地質學會109年年會暨學術研討會(2020TGA)*, 台北市 松山文創園區：中華民國地球物理學會與中華民國地質學會, 2020-11-17 ~ 2020-11-18.

林豐盛*、陳羽薰、林慶仁, Nov. 2020, “海底絕對水壓計的機構設計”, paper presented at *中華民國地球物理學會與中華民國地質學會109年年會暨學術研討會*, 台北市 松山文創園區：中華民國地球物理學會與中華民國地質學會, 2020-11-17 ~ 2020-11-18.

Chih-Chieh Chien*, Ying-Nien Chen, Yuancheng Gung, Ban-Yuan Kuo, Shu-Huei Hung, Eh Tan, Kate Huihsuan Chen, Shuichi Kodaira, Yasushi Ishihara, Mamoru Nakamura, ChauChang Wang, Ching-Ren Lin, May. 2020, “Spatiotemporal Variations of PM Excitation in the Northern Okinawa Trough Revealed by OBS Array”, paper presented at *JpGU-AGU Joint Meeting 2020*, Chiba, Japan: Japan Geoscience Union, American Geophysical Union, 2020-05-24 ~ 2020-05-28.

Shu-Huei Hung*, Ban-Yuan Kuo, Pei-Ying Patty Lin, Yuancheng Gung, Eh Tan, Kate Huihsuan Chen, Ching-Ren Lin, Chau-Chang Wang, Shuichi Kodaira, Yasushi Ishihara, Mamoru Nakamura, May. 2020, “Upper mantle velocity structure beneath the northern Ryukyu subduction zone revealed from multiscale finite-frequency traveltome tomography”, paper presented at *JpGU-AGU Joint Meeting 2020*, Chiba, Japan: Japan geoscience Union, American Geophysical Union, 2020-05-24 ~ 2020-05-28.

Ching-Ren Lin, Chih-Wen Chiang*, Kuei-Yi Huang, Yu-Hung Hsiao, Po-Chi Chen, Hsu-Kuang Chang, Jia-Pu Jang, Kun-Hui Chang, Feng-Sheng Lin, Saulwood Lin, and Ban-Yuan Kuo, Sept. 2019, “Evaluations of an ocean bottom electro-magnetometer and preliminary results offshore NE Taiwan”, *Geoscientific Instrumentation, Methods and Data Systems (GI)*, 8(2), 265-276.

Lin, Ching-Ren*, Feng-Sheng Lin, Ban-Yuan Kuo, Kun-Hui Chang, Dec. 2019, “Mechanism Design and Data Analysis of 3D Ocean Current Meter (OCM) with Broadband OBS.”, paper presented at *2019 AGU Fall Meeting*, San Francisco, USA: American Geophysical Union, 2019-12-09 ~ 2019-12-13.

林慶仁*、郭本垣、張家溥、廖奕鈞、張旭光、陳柏棋、張坤輝、林豐盛、王兆璋·2019年5月·〈寬頻海底地震儀(BBYB OBS)感震器信號檢測與比對分析〉·共58頁·發表於中華民國地球物理學會與中華民國地質學會108年年會暨學術研討會(2019TGA)·台北市南港展覽館：中華民國地球物理學會與中華民國地質學會·2019-05-14~2019-05-17。

林慶仁*、郭本垣、王兆璋、張家溥、張旭光、張坤輝、林豐盛·2019年5月·〈水下聽音器(Hydrophone)的校驗和信號比較〉·發表於2019海洋科學年會暨第十二屆海峽兩岸海洋科學研討會(OC)·台北市南港展覽館：中華民國海洋學會·2019-05-14~2019-05-17。

Ching-Ren Lin*, Ban-Yuan Kuo, Chau-Chang Wang, Jia-pu Jang, Hsu-kuang Chang, Kun-Hui Chang, Feng-Sheng Lin, Dec. 2018, “Deep sea hydrophone calibration and signal compare with seismometer, DPG on sea floor”, SE43-0653 pages, paper presented at *2018 年美國地球物理聯盟 秋季大會 (2018 AGU Fall Meeting)*, Washington, D.C. USA.: American Geophysical Union, 2018-12-10 ~ 2018-12-14.

Kuei-Yi Huang, Chih-Wen Chinag*, Ching-Ren Lin, Yu-Hung Hsiao, Ban-Yuan Kuo, Dec. 2018, “The preliminary result of marine electromagnetic data in the western Okinawa Trough offshore NE Taiwan”, GP31C-0734 pages, paper presented at *2018 年美國地球物理聯盟 秋季大會 (2018 AGU Fall Meeting)*, Washington, D.C. USA.: American Geophysical Union, 2018-12-10 ~ 2018-12-14.

Chih-Wen Chiang*, Ching-Ren Lin, Yu-Hung Hsiao, Kuei-Yi Huang,, Jun. 2018, “New Equipment of Onshore and Offshore Magnetotelluric Systems in Taiwan”, SE23-A006 pages, paper presented at *15th Annual Meeting of the Asia Oceania Geosciences Society (AOGS2018)*, Hawaii, USA: Asia Oceania Geosciences Society, 2018-06-04 ~ 2018-06-08.

Ching-Ren Lin*, Chih-Wen Chiang, Ban-Yuan Kuo, Yu-Hang Shiao, Chau-Chang Wang, Jia-pu Jang, Hsu-kuang Chang, Kun-Hui Chang, Feng-Sheng Lin1, Kuei-Yi Huang, Jun. 2018, “Ocean Bottom Electro-Magnetometer (OBEM) Development and Calibration in Taiwan”, AOGS2018: SE23-A002 pages, paper presented at *15th Annual Meeting of the Asia Oceania Geosciences Society (AOGS2018)*, Hawaii, USA: Asia Oceania Geosciences Society, 2018-06-04 ~ 2018-06-08.

林慶仁*、姜智文、郭本垣、蕭毓宏、王兆璋、張家溥、張旭光、黃桂奕、林豐盛·2018年5月·〈海底電磁測量儀的研發與校正〉·共260頁·發表於中華民國地質學會與中華民國地球物理學會107年年會暨學術研討會·嘉義中正大學：中華民國地質學會與中華民國地球物理學會·2018-05-02~2018-05-03。

- Hsin-Hua Huang*, Ya-Ju Hsu, Chih-Yu Kuo, Chien-chih Chen, Li-Wei Kuo, Rou-fei Chen, Ching-ren Lin, PeiYing Patty Lin, Ching-Weei Lin, Meei-Ling Lin, Kuo-Lung Wang., Dec. 2017, “Probing dynamic hydrologic system of slowly-creeping landslides with passive seismic imaging: A comprehensive landslide monitoring site at Lantai, Ilan area in Taiwan”, paper presented at *2017 AGU Fall Meeting.*, New Orleans, USA: American Geophysical Union, 2017-12-11 ~ 2017-12-15.
- Po-Chi Chen*, Jia-Pu Jang, Hsu-Kuang Chang, Ching-Ren Lin, Chau-Chang Wang, Pei-Ying Lin, Ban-Yuan Kuo, Aug. 2017, “A RealTime Ground Motion Monitoring System via Respberry Pi 3”, paper presented at *14th Annual Meeting of the Asia Oceania Geosciences Society (AOGS2017)*, 新加坡: Asia Oceania Geosciences Society, 2017-08-07 ~ 2017-08-11.
- Ching-Ren LIN*, Ban-Yuan KUO, KunHui Chang, Yi-Wei Lin, Jia-Pu Jang, Feng-Sheng Lin, Aug. 2017, “A study of calibration of differential pressure gauge”, paper presented at *14th Annual Meeting Asia Oceania Geosciences Society (AOGS 2017)*, 新加坡: Asia Oceania Geosciences Society, 2017-08-07 ~ 2017-08-11.
- Jia-Pu Jang * , Hsu-Kuang Chang, Po-Chi Chen, Chau-Chang Wang, Ching-Ren Lin, Pei-Ying Lin, Aug. 2017, “Leveling Device Design Based on a Higher Deceleration Mechanism”, paper presented at *14th Annual Meeting of the Asia Oceania Geosciences Society (AOGS 2017)*, 新加坡: Asia Oceania Geosciences Society, 2017-08-07 ~ 2017-08-11.
- Hsu-Kuang Chang*, Jia-Pu Jang, Po-Chi Chen, Ching-Ren Lin, Chau-Chang Wang, Ban-Yuan Kuo, Kwanghee Kim, Pei-Ying Lin, Aug. 2017, “The Development of Ocean Bottom Seismographs in Taiwan”, paper presented at *14th Annual Meeting of the Asia Oceania Geosciences Society (AOGS 2017)* , 新加坡: Asia Oceania Geosciences Society, 2017-08-07 ~ 2017-08-11.
- Wang, C.-C.* , X.-R. Luo, H.-C. Chang, C.-R. Lin, Jun. 2017, “Calibration of differential pressure gauge for ocean bottom seismology study”, 1-4 pages, paper presented at *OCEANS 2017 - Aberdeen*, Aberdeen, UK: IEEE, 2017-06-19 ~ 2017-06-22.
- 林慶仁 * 、 郭本垣、張家溥、張坤輝、林豐盛 · 2017 年 5 月 · 〈海底地震儀用差動水壓計的校驗研究〉 · 共 P.P. 289 頁 · 發表於中華民國地球物理學會與中華民國地質學會 106 年年會暨學術研討會 · 國立成功大學成功廳：國立成功大學地球科學系暨研究所、中華民國地球物理學會、中華民國地質學會 · 2017-05-10 ~ 2017-05-11。
- 林慶仁* 張坤輝 林豐盛 郭本垣 張家溥 廖奕鈞 王兆璋 · 2017 年 12 月 · 〈寬頻海底地震儀 BBYB 內部元件性能檢測報告〉 · 《中央研究院地球所技術報告 IESAS2231》 · 頁 101。
- Ching-Ren Lin*, Ban-Yuan Kuo, Yi-Jun Liaw, Chau-chang Wang, Jia-pu Jang, Hsu-kuang Chang, Kun-Hui Chang, Feng-Sheng Lin, Dec. 2016, “Broad-band OBS (BBYB) development and calibration in Taiwan”, paper presented at *2016 年美國地球物理聯盟 秋季大會 (2016 AGU Fall Meeting)*, 美國 舊金山: 美國地球物理聯盟, 2016-12-12 ~ 2016-12-16.
- Ching-Ren LIN*, Ban-Yuan KUO, Chau-Chang WANG, Po-Chi CHEN, Jia-Pu JANG, Hsu-Kuang CHANG, Jul. 2016, “A study for hydrophone and differential pressure gauge (DPG) data analysis”, paper presented at *13th Annual Meeting Asia Oceania Geosciences Society (AOGS 2016)*, 北京: Asia Oceania Geosciences Society, 2016-07-31 ~ 2016-08-05.
- 林慶仁*, 郭本垣, 張家溥, 張旭光, 陳柏棋, 林佑柔 · 2016 年 5 月 · 〈應用在海底地震儀的水下聽音器與差動水壓計資料差異性分析〉 · 共 P.P. 33 頁 · 發表於 2016 年台灣地球科學聯合學術大會 · 台北市 南港：中華民國地球科學會 等 · 2016-05-15 ~ 2016-05-20。
- Ching-Ren Lin*, Ya-Ju Hsu, Ban-Yuan Kuo, Jan. 2016, “The characteristic comparison of Instruments for seafloor geodesy”, paper presented at *2016 IEEE/OES China Ocean Acoustics Symposium*, 中國 哈爾濱: Harbin Engineering University, 2016-01-09 ~ 2016-01-11.
- Kuo, B. Y*, W. C. Crawford, S. C. Webb, C. R. Lin, T. C. Yu, and L. Chen, Jun. 2015, “Faulting and hydration of the upper crust of the SW Okinawa Trough during continental rifting: Evidence from seafloor compliance inversion”, *GEOPHYSICAL*

- 林慶仁*、郭本垣、廖奕均、王兆璋, May. 2015, "Construction and testing of Broad-band Ocean Bottom Seismometer in Taiwan", paper presented at 第八屆世界華人地質大會, 台北市南港: 中央研究院, 2015-05-13 ~ 2015-05-21.
- 林慶仁*, 郭本垣, 廖奕均, 王兆璋, 張旭光, 張家溥, 陳柏棋 · 2015 年 5 月 · 〈寬頻海底地震儀的建造與測試〉 · 共 P.P. 63 頁 · 發表於中華民國地球物理學會與中華民國地質學會 104 年年會暨學術研討會 · 台北市中國文化大學: 中華民國地球物理學會與中華民國地質學會 · 2015-05-13 ~ 2015-05-15 。
- Ban-Yuan Kuo*, Spahr C. Webb, Ching-Ren Lin, Wen-Tzong Liang, and Nai-Chi Hsiao, Aug. 2014, "Removing Infragravity-Wave-Induced Noise from Ocean-Bottom Seismographs (OBS) Data Deployed Offshore of Taiwan.", *BULLETIN OF THE SEISMOLOGICAL SOCIETY OF AMERICA*, Vol. 104, No. 4, pp, 1674-1684. (SCIE) (IF: 2.6; SCI ranking: 37.9%)
- Ching-Ren Lin*, Ban-Yuan Kuo, Po-chi Chen, Chau-chang Wang, Jia-pu Jang, Hsu-kuang Chang., Dec. 2014, "Development of hydrophone and its applications use in OBS", OS31D-1028 pages, paper presented at 2014 AGU Fall Meeting, 美國 舊金山: American Geophysical Union, 2014-12-15 ~ 2014-12-19.
- 林慶仁*、張坤輝、謝立德、梁進維、劉忠智, May. 2014, "MicrOBS 短週期海底地震儀的系統校驗檢測", paper presented at 中華民國地質學會與中華民國地球物理學會 103 年年會暨學術研討會, 東華大學人社二館: 東華大學自然資源與環境學系、中華民國地質學會、中華民國地球物理學會, 2014-05-14 ~ 2014-05-15.
- 朱崇銳*, 黃清哲, 林慶仁, 王兆璋, 郭 · 2014 年 5 月 · 〈土石流造成地表震動訊號之時頻特徵〉 · 發表於中華民國地質學會與中華民國地球物理學會 103 年年會暨學術研討會 · 東華大學人社二館: 中華民國地球物理學會....等 · 2014-05-14 ~ 2014-05-15 。
- Ching-Ren Lin*, Ban-Yuan Kuo, Chau-Chang Wang, Dec. 2013, ". A study of ambient seismic noise on the seafloor of the Okinawa trough and the Bashi Channel south of Taiwan", OS31C-1722 pages, paper presented at *American Geophysical Union's 46th annual Fall Meeting*, 美國 舊金山: American Geophysical Union, 2013-12-09 ~ 2013-12-13.
- 林慶仁*、郭本垣、林立青、陳柏棋、王兆璋、張家溥、張旭光、陳界宏 · 2013 年 11 月 · 〈底地震儀用水下聽音器(Hydrophone)的研發與應用〉 · 共 761-766 頁 · 發表於第 35 屆海洋工程研討會 · 國立中山大學: 台灣海洋工程學會 · 2013-11-21 ~ 2013-11-22 。
- 林慶仁*、彭振謙、郭本垣 · 2013 年 5 月 · 〈台灣周圍海域沖繩海槽和巴士海峽海床地振動背景雜訊的特性研究〉 · 共 T3-P-06 頁 · 發表於 102 年中華民國地球物理學會與社團法人中華民國地質學會年會暨學術研討會 · 桃園縣龍潭渴望園區渴望學習中心: 中華民國地球物理學會....等 · 2013-05-13 ~ 2013-05-17 。
- 郭本垣*、余岱潔、林慶仁 · 2013 年 5 月 · 〈由海底地震儀垂直分量中移除低頻雜訊〉 · 共 T3-P-06 頁 · 發表於 102 年中華民國地球物理學會與社團法人中華民國地質學會年會暨學術研討會 · 桃園縣龍潭渴望園區渴望學習中心: 年中華民國地球物理學會 · 2013-05-13 ~ 2013-05-17 。
- 朱崇銳*、黃清哲、顏利宸、林慶仁、王兆璋, Apr. 2013, "地震儀應用於土石流監測之研究", *水保局 坡地防災*, pp. 153-167.
- Ban-Yuan Kuo*, Chau-Chang Wan, Shu-Chuan Lin, Ching-Ren Lin, Po-Chi Chen, Jia-Pu Jang, Hsu-Kuang Chang, Nov. 2012, "Shear-wave splitting at the edge of the Ryukyu subduction zone", *Earth and Planetary Science Letters*, Volumes 355-356, 261-270. (SCIE) (IF: 4.8; SCI ranking: 9.2%)
- Chau-Chang Wang*, Po-Chi Chen, Ban-Yuan Kuo, Ching-Ren Lin, Mar. 2012, "Development of a geophone-based ocean bottom seismometer in Taiwan", *IEEE OCEANS*, DOI: 10.1109/UT.2011.5774142, 1-7. (EI)
- C.H. Chen*, J.Y. Liu, T.M.Chang, T.K. Yeh, C.H.Wang, S.Wen, H.Y. Yen, K. Hattori, C.R.Lin, Y.R.Chen., 2012, "Azimuthal propagation of seismo-magnetic signals emitted from large earthquakes in Taiwan", *ANNALS OF GEOPHYSICS*, doi:

10.4401/ag-5326., 63-71. (SCIE) (IF: 1.2; SCI ranking: 67.8%)

Ching-Ren Lin*, Chai-Chang Wang, Po-Chi Chen, Hsu-Kuang Chang, Jia-Pu Jang, Ban-Yuan Kuo, Dec. 2012, "OBS development and data analysis in Taiwan", paper presented at *American Geophysical Union's 45th annual Fall Meeting 2012*, 美國舊金山: American Geophysical Union, 2012-12-03 ~ 2012-12-07.

郭本垣*、林慶仁、2012年5月·〈沖繩海槽地幔楔之非均向性〉·共99頁·發表於中華民國地質學會、中華民國地球物理學會101年年會暨學術研討會·中壢:中央大學地球科學系·2012-05-17~2012-05-18。

林慶仁*、劉子瑞、陳柏棋、王兆璋、張旭光、郭本垣·2012年5月·〈省電型寬頻地震儀的研發〉·共245頁·發表於中華民國地質學會、中華民國地球物理學會101年年會暨學術研討會·中壢:中央大學地球科學系·2012-05-17~2012-05-18。

C.H.Chen*, S.Wen, J.Y.Liu, T.K.Yeh, C.H.Wang, H.Y.Yen, K. Hattori, C.R.Lin, Dec. 2011, "Seismomagnetic Signal Comparison using the Morlet Wavelet Method", *Disaster Adv*, 4, 53-60.

Chau-Chang Wang, Po-Chi Chen, Chin-Ren Lin, Ban-Yuan Kuo., Apr. 2011, "Development of a short-period ocean bottom seismometer in Taiwan", *Underwater Technology (UT), 2011 IEEE Symposium on and 2011 Workshop on Scientific Use of Submarine Cables and Related Technologies (SSC)*, UT.2011.5774142.

林順堂*、許明光、林慶仁、江俊明·2011年6月·〈腦波分析對薰衣草精油芳療效益之評估研究〉·共9-12頁·發表於2011民生科技產業應用研討會暨學生專題發表·台北市:臺北城市科技大學·2011-06-11。

林慶仁*、張旭光、陳柏棋、張家溥、郭本垣、王兆璋·2011年5月·〈海底地震儀用水下聽音器的研發〉·共340頁·發表於中華民國地球物理學會與中華民國地質學會100年年會暨學術研討會論文集·台北:中央研究院地球科學研究所·2011-05-04~2011-05-05。

Wu-Cheng Chi, Wan-Jou Chen, David Dolenc, Ban-Yuen Kuo, Chingren Lin, and John Collins, Nov. 2010, "Seismological Report on the 2006 Typhoon Shanshan that Lit up Seismic Stations along Its Way.", *SEISMOLOGICAL RESEARCH LETTERS*, Volume 81, 592-596.. (SCIE) (IF: 2.6; SCI ranking: 37.9%)

Ching-Ren Lin, Ban-Yuan Kuo, Wen-Tzong Liang, Wu-Cheng Chi, Yu-Chih Huang, John Collins, and Chien-Ying Wang, Oct. 2010, "Ambient Noise and Teleseismic Signals Recorded by Ocean-Bottom", *TERRESTRIAL ATMOSPHERIC AND OCEANIC SCIENCES*, Vol. 21, No. 5, 743-755. (SCIE) (IF: 0.8; SCI ranking: 93.5%,97.9%,90.3%)

Ching-Ren Lin*, Ban-Yuan Kuo, Wen-Tzong Liang, Wu-Cheng Chi, Yu-Chih Huang, John Collins and Chien-Ying Wang, Dec. 2010, "Ambient Noise and Teleseismic Signals Recorded by Ocean-Bottom Seismometers Offshore Eastern Taiwan", paper presented at *2012 AGU Fall meeting*, 美國舊金山: America Geophysical Union, 2010-12-13 ~ 2010-12-18.

林慶仁*、陳柏棋、王兆璋、張旭光、張家溥、田蓉禮、郭本垣·2010年11月·〈新一代沈浮式海底地震儀之研發〉·共735-740頁·發表於第32屆海洋工程研討會·國立台灣海洋大學:國立台灣海洋大學,台灣海洋工程學會,台灣海洋科技研究中心,經濟部水利署·2010-11-25~2010-11-26。

林慶仁、陳慶盈*、王兆璋、陳柏棋、張旭光、張家溥、田蓉禮、郭本垣, Nov. 2010, "海底地震儀感震器動態特性檢測", 729-734 pages, paper presented at *第三十二屆海洋工程研討會*, 國立台灣海洋大學:國立台灣海洋大學,台灣海洋工程學會,台灣海洋科技研究中心,團法人國家實驗研究院台灣海洋科技研究中心, 2010-11-25~2010-11-26.

陳界宏、林慶仁、劉正彥、顏宏元、葉大綱, Apr. 2010, "台灣宜蘭地區之地磁海岸效應", 194 pages, paper presented at *中華民國地球物理學會與中華民國地質學會99年年會暨學術研討會*, 台北 台灣大學醫學院國際會議中心: 台大地質系, 中華民國地質學會, 中華民國地球物理學會, 2010-04-29~2010-04-30.

林慶仁*、王兆璋、陳慶盈、陳柏棋、張旭光、郭本垣, Apr. 2010, "應用CNC工具機於長週期感震器之檢測", 308 pages, paper presented at *中華民國地球物理學會與中華民國地質學會99年年會暨學術研討會*, 台灣大學醫學院國際會議中

心: 台大地質系, 中華民國地質學會, 中華民國地球物理學會, 2010-04-29 ~ 2010-04-30.

Chieh-Hung Chen, Ching-Ren Lin, Hsiao-Ling Chao, Horng-Yuan Yen, Jann-Yenq Liu, and Yih-Hsiung Yeh, Oct. 2009, "Evaluation of the Applicability of Chapman-Miller Method on Variation of the Geomagnetic Total Intensity Field in Taiwan from 1988 to 2007.", *TERRESTRIAL ATMOSPHERIC AND OCEANIC SCIENCES*, Vol. 20, No. 6, 799-806. (SCIE) (IF: 0.8; SCI ranking: 93.5%,97.9%,90.3%)

Ban-Yuan Kuo, Wu-Cheng Chi, Ching-Ren Lin, Emmy Tsui-Yu Chang, John Collins⁴ and Char-Shine Liu, Oct. 2009, "Two-station measurement of Rayleigh-wave phase velocities for the Huatung basin, the westernmost Philippine Sea, with OBS: implications for regional tectonics.", *GEOPHYSICAL JOURNAL INTERNATIONAL*, 179, 1859–1869. (SCIE) (IF: 2.8; SCI ranking: 33.3%)

Chow-Son Chen, Wei-Hsuan Chiu, and Ching-Ren Lin., Jun. 2009, "Metal Detection by Multi-Component TEM Method.", *TERRESTRIAL ATMOSPHERIC AND OCEANIC SCIENCES*, Vol. 20, No. 3, 445-454. (SCIE) (IF: 0.8; SCI ranking: 93.5%,97.9%,90.3%)

邱維宣、李準勝、林慶仁、姜智文、陳洲生·2009年6月·〈應用三維時間域電磁測勘技術於基礎工程構造物之研究〉·《水土保持學報》·第41卷第4期·頁357-370。

Horng-Yuan Yen, Chieh-Hung Chen, Hsien-Hsiang Hsieh¹, Ching-Ren Lin, Yih-Hsiung Yeh, Yi-Ben Tsai¹, Jann-Yeng Liu, Guey-Kuen Yu, and Yi-Ru Chen, Apr. 2009, "Magnetic Survey of Taiwan and Its Preliminary. Interpretations", *TERRESTRIAL ATMOSPHERIC AND OCEANIC SCIENCES*, Vol. 20, No. 2, 309-314. (SCIE) (IF: 0.8; SCI ranking: 93.5%,97.9%,90.3%)

Chen, C.H., Liu, J.Y., Yang, W.H., Yen, H.Y., Hattori, K., Lin, C.R., Yeh, Y.H., 2009, "SMART analysis of geomagnetic data observed in Taiwan.", *PHYSICS AND CHEMISTRY OF THE EARTH*, 34, 350-359. (SCIE) (IF: 3; SCI ranking: 33.8%,45.7%,34.3%)

林慶仁*、郭本垣、王兆璋、陳信宏、陳柏棋、陳慶盈、王乾盈、林慧玲, May. 2009, "省電型中週期海底地震儀之研發", S17-0 pages, paper presented at 中華民國地質學會&中國地球物理學會九十八年年會暨學術研討會, 嘉義 中正大學: 中正大學地球與環境科學系, 中國地球物理學會, 中華民國地質學會, 2009-05-06 ~ 2009-05-07.

陳界宏*、林慶仁、顏宏元、劉正彥、葉義雄, May. 2009, "利用 SMART 分析和 Chapman-Miller 法檢驗集集地震地磁前兆", CC04-0 pages, paper presented at 中華民國地質學會&中國地球物理學會九十八年年會暨學術研討會, 嘉義 中正大學: 中正大學地球與環境科學系, 中國地球物理學會, 中華民國地質學會, 2009-05-06 ~ 2009-05-07.

Chow-Son Chen, Wei-Hsuan Chiu, and Ching-Ren Lin, , Jun. 2008, "Three Component Time-domain Electromagnetic Surveying: Modeling and Data Analysis.", *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*, Vol. 4, No. 4, 475-480. (SCIE) (IF: 6.1; SCI ranking: 15.1%,17.6%,15.7%)

陳界宏*、林慶仁、趙曉玲、顏宏元、劉正彥、葉義雄·2008年5月·〈台灣地區全磁場訊號品質分析〉·共 GP1, P35 頁·發表於中華民國地質學會&中國地球物理學會九十七年年會暨學術研討會·台南 成功大學 國際會議廳: 成功大學地球科學系·2008-05-07 ~ 2008-05-09。

林慶仁*、郭本垣、梁文宗、戚務正、黃有志、王乾盈, May. 2008, "台灣東部海域之海床地動背景雜訊特性分析研究", O1, P32 pages, paper presented at 中華民國地質學會&中國地球物理學會九十七年年會暨學術研討會, 台南 成功大學國際會議廳: 中華民國地質學會, 中國地球物理學會, 成功大學地球科學系, 2008-05-07 ~ 2008-05-09.

林慶仁*、劉忠智、劉啟清、林欽仁、王乾盈·2007年5月·〈測站溫度變動對高精度數位化器記錄資料品質之影響及改善對策〉·共 97 頁·發表於 2007 年台灣地球科學聯合學術討論會·龍潭 渴望園區: 國科會地球科學推動中心·2007-05-15 ~ 2007-05-18。