

Chengli Wei, Ph.D.

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EDUCATION

Baylor University, Waco, TX, US	08/2012 – 05/2018
• Electrical and Computer Engineering (Ph.D.)	
Nankai University, Tianjin, China	09/2009 – 07/2012
• Optical Engineering (M.E.)	
Tianjin University, Tianjin, China	09/2005 – 07/2009
• Optoelectronic Science and Technology (B.E.)	

PROFESSIONAL EXPERIENCE

Associate Professor, Lipscomb University	08/2026 – Present
Associate Professor, University of Mary Hardin-Baylor	05/2024 – 05/2026
Assistant Professor, University of Mary Hardin-Baylor	08/2018 – 05/2024
• Teach undergraduate engineering courses with a 12-hour course load or more each semester	
• Develop curriculum and degree plan for electrical engineering track	
• Lead and develop original research on optics and photonics	
• Contribute to ABET accreditation of UMHB engineering program (Accredited in Aug. 2022)	
o Develop student outcome evaluation criteria	
o Collect and evaluate student outcomes	
o Draft and prepare self-study report and supporting document	
• Build and supervise the electrical and optics labs	
• Advise undergraduate students	
• Serve in different university committees	

RESEARCH INTERESTS

Specialty optical fibers, negative curvature fibers, mid-IR supercontinuum generation, fiber grating, fiber sensors, nanophotonics, simulation and modeling

TEACHING EXPERIENCE

Lipscomb University, 08/2026 – Present
• EECE 4254 Microprocessors
• ENGR 4943 Capstone Design I
University of Mary Hardin-Baylor, 08/2018 – 05/2026
• ENGR 1310 Introduction to Engineering
• ENGR 1320 Introduction to Engineering Fundamentals
• ENGR 2311 Numerical Algorithms
• ENGR 2301 The Effects of Climate Change
• ENGR 2345 Engineering Thermodynamics
• ENGR 2130 Electric Circuits Laboratory
• ENGR 2330 Electrical Circuit Theory
• ENGR 3130 Electronics Laboratory*
• ENGR 3330 Electronics*
• ENGR 3137 Digital Logic Design Laboratory

- ENGR 3260 Engineering for Humanity
- ENGR 3337 Digital Logic Design
- ENGR 3360 Signals and Systems*
- ENGR 3365 Introduction to Optics*
- ENGR 4312 Digital Signal Processing*
- ENGR 4315 Power Systems*
- ENGR 4320 System Dynamics and Control
- ENGR 4330 Engineering Electromagnetics*
- ENGR 4370 CS & Engineering Ethics Seminar
- ENGR 4380 Capstone Design I*
- ENGR 4381 Capstone Design II*
- PHYS 2051 Physics Laboratory I

*New courses proposed and developed by Dr. Wei

Baylor University, 01/2017 – 05/2018

- ELC 2320: Electrical Circuit Theory
- ELC 2130: Electrical Circuit Laboratory
- EGR 1302: Introduction to Engineering Analysis

STUDENT MENTOR

University of Mary Hardin-Baylor

- Advisor of UMHB honor project for Andres Peralta: Hydraulic representation of electrical circuit, 2024
- Mentor junior design project: Hydroponics system powered by a picogrid, 2023
- Mentor capstone design project: Activation system for fruit-fly, 2022
- Mentor capstone design project: Math-Cube for elementary students, 2021
- Mentor capstone design project: 3-D linear stage with both mechanical and electrical control, 2020
- Mentor capstone design project: Remote monitoring system based on Michelson interferometer, 2019
- Mentor capstone design project: Free space optical communication system, 2019

Baylor University

- Mentor Joshua Young on research project: Coupled mode theory in leaky waveguides, 2018
- Mentor Allwell Worgu on research project: Audio communication system based on free space optical transmission, 2017

AWARDS AND HONORS

- UMHB Excellence in Scholarship Award, 2023 (One awardee each year)
- [Chinese government award for outstanding self-financed student study abroad](#), 2018 (Representative speaker of awardees)
- Second place in student competition during Optical Society of America (OSA) annual meeting, 2017
- Who's Who among Students in American Universities and Colleges, 2017
- Travel award in IEEE Photonics Society Summer Topicals Meeting Series, 2015
- Baylor travel award to professional meetings, 2014, 2015, 2016, 2017

SERVICE

- UMHB Science Saturday 2024
- UMHB Watson Scholars' Day 2023 Spring (advisor for the third-place winner)
- UMHB Engineering Game Day, 2022 and 2023
- UMHB Admissions and Recruiting Committee, 2022 – Present
- UMHB Engineering Movie Night, 2021
- UMHB Library Committee, 2019 – 2022
- Founder and advisor of UMHB IEEE Student Chapter, 2019 – Present
- Founder and advisor of UMHB OSA Student Chapter, 2019 – Present

- UMHB Engineering Faculty Search Committee, 2018–Present
- UMHB Watson Scholars’ Day 2019 Fall
- UMHB Watson Scholars’ Day 2019 Spring (advisor for the second-place winner)
- UMHB Sader Day, 2018–2024
Represent engineering department to recruit potential engineering students
- UMHB Crusader Preview Weekend 2018
Represent engineering department to recruit potential engineering students

OTHER ACTIVITIES

- Comsol Day Houston 2018
- Baylor Scholars Day Poster Session 2015–2018
- Baylor Engineering Launch Party 2016, 2018
- Baylor Premiere 2014–2018
- Baylor ECS Back-to-School Beach Bash 2014, 2015, 2018
- Waco Wonderland 2015
- Robotics Competition 2012, 2013
Serve as a judge to evaluate different projects by middle and high school students

PROFESSIONAL SOCIETY

- Membership in Optical Society of America (OSA)
- Membership in IEEE
- Membership in IEEE Photonics Society
- Membership in ASEE

REVIEWER

- OSA: Optics Letters, Optics Express, Journal of Optical Society of America B, Applied Optics
- IEEE: IEEE Photonics Journal, IEEE Access, Journal of Selected Topics in Quantum Electronics, Journal of Lightwave Technology (IEEE/OSA)
- MDPI: Applied Sciences, Photonics, Micromachines, Chemosensors
- Walter De Gruyter: Nanophotonics
- Elsevier: Optics Communications, Optical Fiber Technology
- Springer: Indian Journal of Physics

GRANTS*

- UMHB Faculty Development Grant, 2025 (PI; Amount: \$10726.82; Funded)
- UMHB Summer Research Award, 2025 (PI; Amount: \$10,000, Funded)
- UMHB Summer Research Award, 2024 (PI; Amount: \$10,000, Funded)
- UMHB Faculty Development Grant, 2022 (PI; Amount: \$17,000; Funded)
- UMHB Summer Research Award, 2020 (PI; Amount: \$10,000, Funded)
- Technology Innovation Grants: Improving Character Strengths of Adolescents through Technology Innovation, 2019 (Co-PI: \$320,000; Unfunded)
- UMHB Faculty Development Grant, 2019 – 2020 (PI; Amount: \$9,000; Funded)
- UMHB Summer Research Award, 2019 (PI; Amount: \$10,000; Funded)

*Federal or government related funds are forbidden due to UMHB policy.

ARCHIVAL JOURNAL PUBLICATIONS

Google scholar: <https://scholar.google.com/citations?user=xaRHmAYAAAAJ&hl=en&oi=ao>

1. T. Young, A. J. Goers, D. M. Brown, M. L. Dennis, K. Lehr, C. **Wei**, C. R. Menyuk, and J. Hu, “Tradeoff between the Brillouin and transverse mode instabilities in Yb-doped fiber amplifiers,” Opt. Express 30, 40691–40703 (2022)
2. F. Han, C. **Wei**, J. Hu, J. Shi, and X. Feng, “Highly coherent visible supercontinuum generation in a micrometer-core borosilicate glass photonic crystal fiber,” J. Opt. Soc. Am. B 38, F145–F151 (2021).

3. J. T. Young, **C. Wei**, C. R. Menyuk, and J. Hu, "Mode coupling at avoided crossings in slab waveguides with comparison to optical fibers: tutorial," J. Opt. Soc. Am. B 38, F104–F114 (2021). [[Top downloaded paper of JOSAB Jan. 2022](#)]
4. **C. Wei**, J. T. Young, C. R. Menyuk, and J. Hu, "Temperature sensor based on liquid-filled negative curvature optical fibers," OSA Continuum 2, 2123–2130 (2019).
5. J. O. White, J. T. Young, **C. Wei**, J. Hu, and C. R. Menyuk, "Seeding fiber amplifiers with piecewise parabolic phase modulation for high SBS thresholds and compact spectra," Opt. Express 27, 2962–2974 (2019).
6. **C. Wei**, C. R. Menyuk, and J. Hu, "Geometry of chalcogenide negative curvature fibers for CO₂ laser transmission," Fibers 6, 74 (2018).
7. **C. Wei**, C. R. Menyuk, and J. Hu, "Polarization-filtering and polarization-maintaining low-loss negative curvature fibers," Opt. Express 26, 9528–9540 (2018). [[Media coverage: Advances in Engineering, Dec. 24, 2018](#)]
8. **C. Wei**, J. Weiblen, C. R. Menyuk, and J. Hu, "Negative curvature fibers," Adv. Opt. Photonics 9, 504–561 (2017). (**Impact factor: 21.3**) [[Most cited AOP paper 2017](#)]
9. **C. Wei**, C. R. Menyuk, and J. Hu, "Comparison of loss in silica and chalcogenide negative curvature fibers as the wavelength varies", Front. Phys. 4, 30 (2016).
10. **C. Wei**, C. R. Menyuk, and J. Hu, "Impact of cladding tubes in chalcogenide negative curvature fibers", IEEE Photon. J. 8, 2200509 (2016).
11. **C. Wei**, C. R. Menyuk, and J. Hu, "Bending-induced mode non-degeneracy and coupling in chalcogenide negative curvature fibers," Opt. Express 24, 12228–12239 (2016).
12. Z. Zhu, J. Yuan, H. Zhou, J. Hu, J. Zhang, **C. Wei**, F. Yu, S. Chen, Y. Lan, Y. Yang, Y. Wang, C. Niu, Z. Ren, J. Lou, Z. Wang, and J. Bao, "Excitonic resonant emission absorption of surface plasmon in transition metal dichalcogenides for chip-level electronic photonic integrated circuits," ACS Photonics 3, 869–874 (2016). [[Media coverage: Laser Focus World Aug. 10, 2016](#)]
13. J. Hu, C. R. Menyuk, **C. Wei**, L. B. Shaw, J. S. Sanghera, and I. D. Aggarwal, "Highly efficient cascaded amplification using Pr³⁺-doped mid-infrared chalcogenide fiber amplifiers," Opt. Lett. 40, 3687–3690 (2015).
14. **C. Wei**, R. A. Kuis, F. Chenard, C. R. Menyuk, and J. Hu, "Higher-order mode suppression in chalcogenide negative curvature fibers," Opt. Express 23, 15824–15832 (2015).
15. S. Li, Z. Wang, Y. Liu, T. Han, Z. Wu, **C. Wei**, H. Wei, J. Li, and W. Tong, "Bending sensor based on intermodal interference properties of two-dimensional waveguide array fiber," Opt. Lett. 37, 1610–1612 (2012).
16. X. Zheng, Y. Liu, Z. Wang, T. Han, **C. Wei**, and J. Chen, "Transmission and temperature sensing characteristics of a selectively liquid-filled photonic-bandgap-fiber-based Sagnac interferometer," Appl. Phys. Lett. 100, 141104 (2012).

CONFERENCE PUBLICATIONS

1. J. T. Young, C. R. Menyuk, **C. Wei**, and J. Hu, "Increasing the power threshold in fiber amplifiers considering both the transverse mode and Brillouin instabilities," in Conference on Lasers and Electro-Optics, Technical Digest Series (Optica Publishing Group, 2022), paper SM2L.6.
2. **C. Wei**, F. Han, J. Hu, J. Shi and X. Feng, "Coherent Visible Femtosecond Supercontinuum in Dispersion-Tailored Photonic Crystal Fiber," 2022 IEEE Texas Symposium on Wireless and Microwave Circuits and Systems (WMCS), 2022, pp. 1–6.
3. J. T. Young, J. O. White, **C. Wei**, J. Hu, and C. R. Menyuk, "Comparison of piecewise parabolic and PRBS phase modulation schemes on the SBS threshold," in Frontiers in Optics + Laser Science 2021, Technical Digest Series (Optica Publishing Group, 2021), paper FTh4E.4.
4. **C. Wei**, C. Menyuk, and J. Hu, "Comparison of Leakage Loss in Silica, Chalcogenide, Tellurite, and ZBLAN Negative Curvature Fibers," in Advanced Photonics 2021, Online, paper NoTu3C.6.
5. J. T. Young, J. O. White, **C. Wei**, J. Hu, Curtis R Menyuk, "Piecewise parabolic phase modulation scheme for suppression of stimulated Brillouin scattering," in 2020 IEEE Photonics Conference (IPC), pp 1–2.
6. **C. Wei**, C. Menyuk, and J. Hu, "Bend loss in negative curvature fibers with truncated cladding tubes," in

- Advanced Photonics 2020, OSA Technical Digest (online) (Optical Society of America, 2020), paper NoM4G.7.
7. **C. Wei**, F. Chenard, C. R. Menyuk, and J. Hu, “Negative curvature fibers for gas-filled fiber lasers”, in Sixth International Workshop on Specialty Optical Fibers and Their Applications (WSOF 2019), Vol. 11206 112060Q-1.
 8. **C. Wei**, J. T. Young, C. R. Menyuk, and J. Hu, “Impact of the Glass Thickness in Fluid-Filled Negative Curvature Fibers for Temperature Sensing,” in Frontiers in Optics + Laser Science APS/DLS, OSA Technical Digest (Optical Society of America, 2019), paper JW4A.5.
 9. **C. Wei**, C. Menyuk, and J. Hu, “Optimization of chalcogenide negative curvature fibers for CO₂ laser transmission,” in Proc. Conference on Lasers and Electro-Optics (CLEO 2019), San Jose, CA, paper JW2A.122.
 10. **C. Wei**, C. R. Menyuk, and J. Hu, “Polarization-Filtering Negative Curvature Fibers,” in Frontiers in Optics / Laser Science, OSA Technical Digest (Optical Society of America, 2018), paper JTU3A.1.
 11. J. Hu, **C. Wei**, R. J. Weiblen, C. R. Menyuk, R. R. Gattass, L. B. Shaw, J. S. Sanghera, and F. Chenard, “Recent progress on chalcogenide negative curvature fibers,” 2018 10th International Conference on Advanced Infocomm Technology (ICAIT), Stockholm, Sweden, 2018, pp. 209–213.
 12. F. Han, J. Shi, **C. Wei**, J. Hu, and X. Feng, “Efficient Visible Femtosecond Supercontinuum from an Air-Suspended-Core Microstructured Optical Fiber,” in CLEO Pacific Rim Conference 2018, OSA Technical Digest (Optical Society of America, 2018), paper Tu3B.3.
 13. **C. Wei**, J. Young, C. R. Menyuk, and J. Hu, “Temperature sensor using fluid-filled negative curvature fibers,” in Proc. Conference on Lasers and Electro-Optics (CLEO 2018), San Jose, CA, paper JW2A.179.
 14. C. R. Menyuk, **C. Wei**, J. Weiblen, J. Hu, R. Gattass, L. B. Shaw, and J. S. Sanghera, “Chalcogenide negative curvature fibers,” in Proc. SPIE 10435, Technologies for Optical Countermeasures XIV, 104350I (2017).
 15. **C. Wei**, C. Menyuk, and J. Hu, “Bent negative curvature fibers using circular or elliptical cladding tubes,” in Frontiers in Optics (Optical Society of America, 2017), paper JW4A.9.
 16. **C. Wei**, C. Menyuk, and J. Hu, “Higher-order mode suppression in chalcogenide negative curvature fibers with gaps between cladding tubes,” in Advanced Photonics 2016 (IPR, NOMA, Sensors, Networks, SPPCom, SOF), OSA Technical Digest (online) (Optical Society of America, 2016), paper JTU4A.32.
 17. J. Hu, C. R. Menyuk, **C. Wei**, B. Shaw, J. S. Sanghera, and I. Aggarwal, “Pr³⁺-doped mid-infrared chalcogenide fiber amplifiers using cascaded Amplification,” in Proc. Conference on Lasers and Electro-Optics (CLEO 2016), San Jose, CA, paper STh1O.7.
 18. **C. Wei**, R. A. Kuis, F. Chenard, C. R. Menyuk, and J. Hu, “Mode coupling in chalcogenide negative curvature fibers,” in Proc. Conference on Lasers and Electro-Optics (CLEO 2016), San Jose, CA, paper JTU5A.93.
 19. **C. Wei**, O. Alvarez, F. Chenard, and J. Hu, “Empirical glass thickness for chalcogenide negative curvature fibers,” in Proc. 2015 IEEE Photonics Society Summer Topicals Meeting Series, Mid Infrared Photonics, Nassau, Bahamas, paper TuE3.3 (2015).
 20. **C. Wei**, J. Hu, and C. Menyuk, “Bending-induced mode coupling in chalcogenide negative curvature fibers,” in Proc. Advanced Photonics, Boston, MA, paper NT2C.5 (2015).
 21. **C. Wei**, R. Kuis, F. Chenard, and J. Hu, “Chalcogenide negative curvature hollow-core photonic crystal fibers with low loss and low power ratio in the glass,” in Proc. Conference on Lasers and Electro-Optics (CLEO 2014), San Jose, CA, paper SM1N.5.
 22. **C. Wei**, Z. Wang, Y. Liu, B. Liu, H. Zhang, and Y. Liu, “Coupling characteristics of a fluid-filled dual-core photonic crystal fiber based on temperature tuning”, in SPIE/OSA/IEEE Asia Communications and Photonics, pp. 83071R (2011).

TECHNICAL SKILLS

- C programming
- AVR assembly language programming
- Matlab
- Comsol Multiphysics

- Lumerical FDTD solution
- SolidWorks
- AutoCAD
- LabVIEW
- Electrical equipment operation
- Optical equipment operation

WORKSHOP AND TRAININGS

- Mobile Robot Commissioning Training, Agile Robots, Beijing, China (June 2026)
- NSF Engineering CAREER Proposal Workshop (5/15/2024–5/17/2024)
- Electromagnetics in COMSOL Multiphysics: RF and Wave Optics (7/18/2023–7/21/2023)
- Wave and Ray Optics in COMSOL Multiphysics (6/6/2023– 6/9/2023)
- COMSOL Day Houston (2018)
- CLEO Short Course, Finite Element Modelling Methods for Photonics and Optics (2015)