



John H. Hamilton, MSME, PE

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Highly experienced licensed mechanical engineer. Advanced Instructor at University of Arkansas. 25+ years of teaching experience. Highly experienced expert witness - has testified at over 70 depositions and over 15 trials.

PROFESSIONAL EXPERIENCE

University of Arkansas, Fayetteville, AR **2024-Present**

Advanced Instructor, Mechanical Engineering Department

- Teach fundamental, upper-level mechanical engineering classes including *Mechanics of Materials, Machine Element Design, Fluid mechanics, Heat Transfer*
- Teach engineering labs where students learn about experimental techniques and equipment
- Develop, coordinate, and advise for senior design projects with local industries where students have to design and built prototypes to assist in manufacturing.
- Created, developed and currently teaches a senior level elective in design for safety where students learn the fundamentals of safe design including, hierarchies of design, hazard analysis techniques, warnings theory and design, machine guarding, and human factors.

John Hamilton Engineering, LLC, **2002-Present**

(formally known as John Hamilton Enterprises), Mountainburg, AR

Consultant

- Provide engineering expertise on various machines and systems in product liability, patent, and criminal cases. Case issues include:
 - OSHA
 - Lawn mower stability
 - Machine guarding
 - Lock out Tagout (LOTO)
 - Warnings
 - Printing presses
 - Injection molding machines
 - Blow molding machines
 - Thermoforming machines
 - UTV lift kits
 - ATV failures
 - Household blenders
 - Sod harvesters

- *Pneumatic conveyors*
- *Granulators/grinders*
- *Mechanical power presses*
- *Wind turbine efficiency*
- *Webcam mounting*
- *Agricultural seed cart*
- *Water bottle*

University of Arkansas, Fayetteville, AR
Instructor, Mechanical Engineering Department

2002-2024

Ryan Engineering Inc., Siloam Springs, AR
Senior Engineer

1998-2002

- *Industrial consultant and expert witness*
 - *Pressure vessels, compliance with standards*
 - *Ship fastening points, stress analysis.*
 - *Automatic guided vehicle (AGV)*
 - *ATV failures*
 - *Injection molding machines*
 - *Pressure vessel*
 - *Agricultural guarding*
 - *Blow molding machines*
 - *Lawn mowers*
 - *Guarding*
 - *Industrial accidents*
 - *Pallet maker*

John Brown University, Siloam Springs, AR
Instructor, Undergraduate Science and Engineering

1996-1998

University of Arkansas, Fayetteville, AR
Instructor, Undergraduate Thermodynamics

1996-1999

University of Arkansas, Fayetteville, AR
Graduate Teaching Assistant, Undergraduate Engineering

1994-1996

Self Employed, Fayetteville, AR
Independent Consultant

1994-1998

- *Various consulting projects included performing energy analysis on infrared space heaters to completing federally required hazardous material emissions reports*

FM Corporation, Rogers, AR
Plant Engineer

1991-1994, Summer 1997

- *Assisted in facility and equipment upgrades and revisions for things such as injection molding machines, support equipment granulators, cyclones, and chilled water systems and plant wide compliance with safety (OSHA) and environmental (EPA) regulations such as Lock out Tag out (LOTO) and machine guarding,*

FM Corporation, Rogers, AR
Manufacturing Engineer

1991

- *Designing and improving manufacturing processes and communicating with customers as needed*

PROFESSIONAL LICENSE

Licensed Professional Engineer, Arkansas

EDUCATION

University of Arkansas, Fayetteville, AR **1997**
Master of Science in Mechanical Engineering (MSME)
Study in Thermal Systems

University of Arkansas, Fayetteville, AR **1990**
Bachelor of Science in Mechanical Engineering (BSME)

PUBLICATIONS

JOURNALS/PERIODICALS/CONFERENCE PAPERS

1. **Hamilton, John H, Morse, John S.** *Protecting workers performing Maintenance: Comparing Modalities.* Proceedings of the ASME 2024 International Engineering Congress and Exposition. November 2024. IMECE2024-144163
2. **Hamilton, John H.** *It Won't Happen to Me: Safe Machine Guarding Practices and Guidelines.* Workplace Safety & HR. May, 2012.
3. **Hamilton, John H, Morse, John S.** *Hazard Analysis.* Plant Engineering. December, 2002.
4. **Hamilton, John H.** *Two-Phase Effervescent Atomization Via a Liquid-Liquid Chemical Reaction.* University of Arkansas Press. 1997.

PROFESSIONAL AFFILIATIONS

American Society of Mechanical Engineers

American Society for Engineering Education