

# Cemal Basaran



Degrees and Titles: Professor Dr.

Position:

- Professor at the Department of Civil, Structural and Environmental Engineering, School of Engineering and Applied Sciences, University at Buffalo
- Volunteer Profesor at the Faculty of Mechanical Engineering, Cracow University of Technology

Field of engineering and technical sciences

Discipline mechanical engineering

---

## Academic functions:

Director, Electronic Packaging Laboratory, University at Buffalo

---

## Affiliation with professional and academic organizations:

Fellow, American Society of Mechanical Engineers (ASME)

---

## Academic achievements:

Cemal Basaran is a professor in the Dept. of Civil, Structural, and Environmental Engineering at the University at Buffalo, the State University of New York. He specializes in the computational and theoretical mechanics of materials. He has authored more than 160 peer-reviewed journal publications (his H-index is 45), and graduated 24 PhD students as the primary advisor.

Prof. Basaran is the author of a textbook, Introduction to Unified Mechanics Theory with Applications (Springer-Nature, 2023, second edition), the theory which he has been developing for many years. The Unified Mechanics Theory (UMT) is the unification of the laws of Newton and the second law of thermodynamics at the ab initio level.

Recently prof. Basaran signed the cooperation agreement, as a volunteer, on writing and submitting research proposals and supervising Masters and PhD students at the Faculty of Mechanical Engineering, Cracow University of Technology.

Prof. Basaran has been collaborating for several years with Prof. Halina Egner, and the collaboration resulted in publications in journals with a high impact factor, and joint research proposals submitted to the National Science Centre of Poland.

He is the recipient of the Excellence in Mechanics Awarda, 2011, ASME EEPD

---

## Professional credentials/language skills

English, Turkish

---

## Research area:

Unified Mechanics Theory; Computational Mechanics; Mechanics of Materials

---

## Contact Information:

243 Ketter Hall  
Buffalo NY, 14260  
Phone: (716) 645-4375  
cjb@buffalo.edu

---

## Useful links:

[https://engineering.buffalo.edu/civil-structural-environmental/people/faculty\\_directory/cemal-basaran.publications.html](https://engineering.buffalo.edu/civil-structural-environmental/people/faculty_directory/cemal-basaran.publications.html)