



**Professor Ahmed Cemal Eringen (1921 – 2009)**

See:

[https://en.wikipedia.org/wiki/Ahmed\\_Cemal\\_Eringen](https://en.wikipedia.org/wiki/Ahmed_Cemal_Eringen)

<https://upclosed.com/people/ahmed-cemal-eringen/>

<http://worldcat.org/identities/lccn-n83826801/>

<http://www.biyografya.com/biyografi/1271>

<http://www.korhaber.com/haber/Cemal-Eringen-vefat-etti/10931>

### **Biography (from Wikipedia):**

Ahmed Cemal Eringen (born February 15, 1921, in Kayseri, Turkey - December 7, 2009) was a Turkish-American engineering scientist. He was a professor at Princeton University and the founder of the Society of Engineering Science. The Eringen Medal is named in his honor.

### **Education (from Wikipedia):**

Eringen studied at the Technical University of Istanbul and graduated with a diploma degree in 1943 and then worked for the Turkish Aircraft Co. until 1944. In 1944/45, he was a trainee at the Glenn L. Martin Company and in 1945 was group leader at the Turkish Air League Company. He continued his studies at the Polytechnic Institute of Brooklyn in New York City where he received his doctorate in applied mechanics in 1948 under the supervision of Nicholas J. Hoff

### **Academic life (from Wikipedia):**

He became assistant professor at the Illinois Institute of Technology in 1948, associate professor in 1953 and professor in 1955 at Purdue University. He was appointed as professor of aerospace and mechanical engineering at Princeton University in 1966. He became professor of continuum mechanics in the departments of civil and geological engineering and the program in applied and computational mathematics at Princeton University. He retired in 1991 as the dean of the School of Engineering and Applied Science at Princeton University and died in 2009.

### **Research areas (from Wikipedia):**

His work deals with continuum mechanics, electrodynamics of continua and material theories.

### **Awards (from Wikipedia):**

In 1981 he received an honorary doctorate from the University of Glasgow (D. Sc.). In 1973 he received the Distinguished Service Award and the 1976 as named in his honor A. C. Eringen Medal of the Society of Engineering Science, whose president he was in 1963 to 1973

### **Writings (from Wikipedia):**

- Nonlocal Continuum Field Theories, Springer Verlag, 2002
- Microcontinuum Field Theories, volume 1, Springer Verlag, 1999
- Microcontinuum Field Theories II Fluent Media 1st Edition, Springer 2001
- with Erhan Kiral: Constitutive Equations of Nonlinear Electromagnetic-Elastic Crystals, Springer Verlag, 1990
- with Gérard A. Maugin: Electrodynamics of Continua, 2 volumes, Springer Verlag, 1989
- Continuum Physics (Editor): Continuum Physics, 4 volumes, Academic Press, 1974-1976
- with Erdoğan S. Suhubi: Elastodynamics, volume 1, Academic Press, 1974-1975
- with Erdoğan S. Suhubi: Elastodynamics: Linear Theory volume 2, Academic Press, 1974-1975
- Foundations of Micropolar Thermoelasticity: Course held at the Department for Mechanics of Deformable Bodies July 1970 (CISM International Centre for Mechanical Sciences) 1970th Edition
- Theory of Micropolar Elasticity in Microcontinuum Field Theories, Springer Verlag, 1970
- Mechanics of Continua, Wiley, 1967 (2<sup>nd</sup> edition, Krieger Publ. Co. 1980)
- Nonlinear Theory of Continuous Media, McGraw Hill, 1962
- with Roy C. Dixon: A dynamical theory of polar elastic dielectrics, 1964

### **Other Selected Publications:**

- A. C. Eringen, On the nonlinear vibration of circular membranes, Proc. 1<sup>st</sup> U. S. National Congress of App. Mech. 13 (1951).
- Eringen, A. C. "Bending and Buckling of Rectangular Sandwich Plates, " Proc. of the 1st U. S. Natl. Cong. of Appl. Mech., 1951, pp. 381-389.
- Eringen, A. C. "Buckling of a Sandwich Cylinder under Uniform Axial Compressive Load, " Jour. Appl. Mech. Vol. 18, No. 2, 1951, pp. 195-202.
- A. C. Eringen, On the nonlinear vibration of elastic bars, Qly. J. A. M. 10 (1952).
- Eringen, A. C. "New Numerical Results of the Theory of Buckling of Sandwich Cylinders, " Jour. Appl. Mech. Vol. 23, No. 3, Sept. 1956, pp. 476-477
- A.C. Eringen and E.S. Suhubi, Nonlinear Theory of Simple Microelastic Solid-I, Int. J. Eng. Sci., vol. 2, pp. 189–203, 1964.
- A.C. Eringen and E.S. Suhubi, Nonlinear Theory of Simple Microelastic Solid-II, Int. J. Eng. Sci., vol. 2, pp. 389–404, 1964.
- Eringen, A. 1966. A Unified Theory of Thermomechanical Materials. Int. J. Eng Sci., 4: 179–202.
- Eringen A.C.: Linear theory of micro-polar elasticity. J. Math. Mech. 15, 909–923 (1966)
- Eringen A.C.: Theory of micro-polar plates. Z. Angew. Math. Phys. 18, 12–30 (1967)
- Kafadar CB, Eringen AC , Micropolar media - I. The classical theory. Int J Eng Sci 9:271–305, 1971
- Eringen A C and Edelen D G B. On nonlocal elasticity. Int J Eng Sci, 10: 233–248, 1972
- Eringen A.C.: Linear theory of non-local elasticity and dispersion of plane waves. Int. J. Eng. Sci. 10, 425 (1972)
- Eringen, A. 1972. Nonlocal Polar Elastic Continua. Int. J. Eng Sci., 10: 1–16

- Eringen AC (1976) Nonlocal field theories. In: Eringen AC (ed) Continuum physics, vol 4. Academic, New York
- Eringen, A. 1987. Theory of Nonlocal Elasticity and Some Applications. Res. Mech., 21: 313–342
- A.C. Eringen, B.S. Kim, “Relation between nonlocal elasticity and lattice dynamics”, Cryst. Latt. Def. Amorp., 7 (1977), pp. 51-57
- N. Ari, A.C. Eringen, “Nonlocal stress field at Griffith crack”, Cryst. Latt. Def. Amorp., 10 (1983), pp. 33-38
- Eringen, A.C.: Theory of nonlocal plasticity. Int. J. Eng. Sci. 21, 741–751 (1983)
- A. C. Eringen, “On differential equations of nonlocal elasticity and solutions of screw dislocation and surface waves,” Journal of Applied Physics, vol. 54, no. 9, pp. 4703–4710, 1983.
- A.C. Eringen, “Microcontinuum Field Theories I: Foundations and Solids”, Springer, New York (1999)