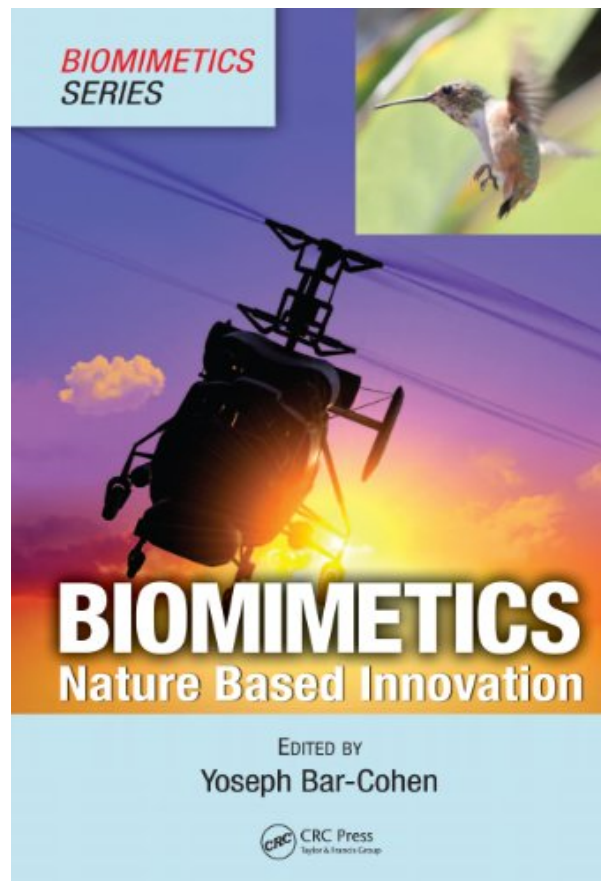


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# **BIOMIMETICS**

## **Nature Based Innovation**

EDITED BY  
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## Review

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? Computing Reviews, June 2012

## About the Author

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Mimicking nature – from science fiction to engineering reality

Humans have always looked to nature's inventions as a source of inspiration. The observation of flying birds and insects leads to innovations in aeronautics. Collision avoidance sensors mimic the whiskers of rodents. Optimization algorithms are based on survival of the fittest, the seed-picking process of pigeons, or the behavior of ant colonies. In recent years these efforts have become more intensive, with researchers seeking rules, concepts, and principles of biology to inspire new possibilities in materials, mechanisms, algorithms, and fabrication processes. A review of the current state of the art, *Biomimetics: Nature Based Innovation* documents key biological solutions that provide a model for innovations in engineering and science.

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- Biomimetic optics from the angles of biology and plants
- Biomimicry of flying birds, insects, and marine biology
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