



IBE BIOETHICS ESSAY CONTEST

Eligibility: Undergraduate and Graduate Students Enrolled in any Major

Topic: The Ethics of Big Data in Bioengineered Systems for Agriculture and Health

Abstract Submission Deadline: December 5, 2019 at <https://easychair.org/conferences/?conf=ibe2019>

Length of Abstract: Maximum 250 words

Essay Submission Deadline: February 6, 2019 to info@ibe.org

Length of Submission: Minimum 1500 words, Maximum 2000 words

Cash Awards: First prize = \$150; Second prize = \$100; and Third prize = \$75

Publication Award: Publication as an opinion article in the *Journal of Biological Engineering*

Travel Grants: \$500/semifinalist

Rising global demand for food amidst increasing drought, extreme temperatures, and pest damage is straining precious land, water, and energy resources. Data-driven sustainable agriculture offers new technologies to increase crop productivity while minimizing collateral impacts to health and environment. However, ethical issues arise regarding practices proposed for data-driven sustainable agriculture, including security and ownership of, access to, responsibility for, and transparency in dissemination of data aggregated from many individual sources.

Undergraduate and graduate students enrolled in any discipline (science, engineering, the arts and humanities, economics, business and social sciences) are invited to compete in the 2019 IBE Bioethics Essay Competition, addressing the ethics of big data in bioengineered systems for agriculture and health. Students should identify two mentors, one from a STEM department and one from a humanities/business/social science/ education discipline, to provide guidance and feedback in developing their entry. Mentors may help

students frame problems, arguments, perspectives, and ethical considerations. Essays are encouraged to discuss any areas of this topic, from privacy to the use of meta-data to ubiquitous data collection. Each essay should pick one aspect of the topic, be well-researched, include relevant literature to support each claim made, and justify opinions stated.

Abstract Submission Deadline: December 5, 2019

BIOETHICS ESSAY CONTEST REQUIREMENTS

To be eligible, students must submit a 250 word abstract to the Bioethics Essay Session at <https://easychair.org/conferences/?conf=ibe2019> by December 5, 2018, including the title, name of the institution(s), and name, email, mailing address, and home department of the student author(s) and each of the mentors. The final, 1500 – 2000-word essay must be submitted via email by February 6, 2019 to info@ibe.org.

Essays should state the ethical framework used to evaluate the specific situation and justify why that ethical framework is best for the situation. Evaluation will include assessment of the proposed solutions or routes forward for navigating potential ethical conflicts, whether from a policy, law, regulatory, technical, or best practice perspective. Entries will be submitted to a plagiarism-checking service. IBE reserves the right to disqualify any entry judged as non-original, any entry over 2000 words, or any entry with grammatical or spelling errors. All winning essays will become the property of IBE. IBE is not responsible for any difficulties encountered during submission and only the finalists will be notified of results.

Finalists will be selected by February 20, 2019; competition judges will provide written feedback to the finalists, who will then refine and present their improved arguments in person at the Bioethics Essay session at the 2019 IBE Annual Meeting to be held on April 4-7, 2019 in St. Louis, Missouri. The final competition rankings will be determined after a five-minute, oral presentation of the essays and ten minutes of Q&A with the judges and the audience. Finalists will be given complimentary registration to the 2019 IBE Annual Meeting and a travel grant not to exceed \$500, with support from NSF ERC Planning Grant: Engineering Research Center for Materials for Agriculture Resource Imaging Analytics at High Resolution (MARIAH). By submitting an essay, students agree to attend the 2019 IBE Annual Meeting, if selected as a finalist.



IBE – The Society for Advancing Biology-Inspired Engineering

IBE is a professional organization that encourages, in the broadest and most liberal manner, interest and inquiry in fostering international cooperation among engineers, scientists, technologists, and allied professionals in order to apply engineering principles to systems of biological origin to improve the quality of the human condition.

www.ibe.org