

Energy and Alternative Fuels:

There is a great deal of accepted wisdom in regards to energy and fuel options, usage, and dependence. Unfortunately, much of it is wrong. This focus area will bring together students from disparate backgrounds who are interested in looking to the future and who are not afraid of new ideas. Exciting opportunities exist for fundamental shifts in the way we generate and use fuel and energy, many of which are poorly explored or easily misrepresented. What opportunities are we missing, and how can we build a secure energy future that is sustainable, accessible, and safe?

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Water and Sustainability:

Clean water is essential to human life, and access to or control of water rights has been a cause of conflict since the earliest days of human civilization. While policy and diplomacy can solve many problems, a rapidly expanding population and widespread pollution require that we consider a wide array of solution vectors. The future of clean, sustainable, universally accessible water will rely on science and technology as much as it will policy. How can we generate and leverage low cost, widely accessible, highly efficient methods for providing one of the most basic of human requirements?

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Cyberspace and Cybersecurity:

William Gibson used the term 'cyberspace' to describe an immersive, consensual sensory environment in which information and humans interact. Since the first use of the term in 1984, it has swung through the full range of cultural identity, from cutting edge through cliché' and back again. In modern usage, the term cyberspace captures the essence of humanity's interaction with the digital realm. Regardless of the name that we give it, there is a new landscape in the human worldview, and it is increasingly becoming a battleground involving more than ideas. How can we reap the great rewards of the information age while protecting our privacy, our industry, and our national interests at home and abroad?