MIRNOVA has unique value for partners, sponsors and collaborators in at least four different ways.

MIRNOVA offers a unique, unusual, and special value to partners, sponsors and collaborators. We invite you to read this brief introduction because you may discover multiple good reasons for us to communicate and collaborate. In brief, we provide educational projects, we co-organize and facilitate research collaborations and consortium-type projects, we provide specialized communication and information distribution, and we provide specialized analytics and consulting at management, research, and engineering levels. The exact long-term relationships that can develop between us will become clear, certainly, after communication and dialog, which we propose can begin in the context of learning about your needs and how we can provide answers, solutions, tools and resources in a sustainable, long-term and very satisfactory manner.

[1] Education
First and foremost is what we do in direct education with youth and adults through focused, outcomes-based projects involving science and engineering directed toward emerging needs and markets in business and society. This constitutes the original and foundational mission of MIRNOVA Academy.

Our educational mission is performed through custom-designed, modular projects with schools, universities, companies, and agencies, for the benefit of their students, members or employees. MIRNOVA tailor-designs individual special projects and larger programs (each of which consist of multiple projects that may span months and years) that involve a number of participants from very diverse backgrounds as both student-learners and mentor-experts. The projects depend upon your needs and goals. They may be in the form of seminars, workshops, tutorials, courses, organized with specific project activities that may include laboratory sessions, hands-on modeling and assembly, and working with partner organizations in both the corporate and academic sectors. Some of the projects are specifically oriented to youth in pre-university school levels, and these are designed to meet school interests and goals for certifications and standards.

[Focal Areas of Expertise]:
- robotics applied to agriculture, environment and space engineering tasks
- sensors for detection of chemicals, biopathogens and radiation
- data fusion, data mining and “big data” analytics
- multi-agent control and cybernetics
- “internet of things” for industrial control
- human-machine interfaces and interactions
- system verification and validation

[Examples]
AgriBrains – cooperative UAV and other robots in agricultural and environmental measurements, sensing, monitoring, and integration of data with farm planning and production

ASTRIC – space-based cooperative robotics for use in lunar and asteroid missions, especially asteroid impact deterrence
[2] Research
Secondly, and closely related to the first, is what we do in coordinated collaborative research projects. We bring ongoing high-promise research results, capabilities, people and infrastructure to you in ways that can be mutually advantageous for all participants. This all builds upon the individual and team strengths of the persons in our network of experts, mentors, teachers, and specialists.

In these research projects, we work with you to create what can ultimately be self-sustaining research leading to practical outcomes. We make full use of our unique resource pools of qualified and verified people who range from deep experts and specialists to youth and adults who are or have been engaged in our educational program activities. We use what we know and do, in order to serve organizations who want objective, comprehensive, and future-oriented understanding that contributes to what they are doing and planning in a wide variety of scientific and engineering activities.

[Focal Areas of Expertise]
Theoretical physics including quantum mechanics and relativity
Quantum biology
Quantum computing
Cooperative and modular robotics
Parallel distributed processing
Systems and control theory

[Examples]
NeoPlexus (GCM – Generalized Computing Machine) – this is a major project in which we are involved as partners; it involves a substantively new architecture of computing
ASTRIC - space-based cooperative robotics for use in lunar and asteroid missions, especially asteroid impact deterrence
ATHOS – a multi-agent operating and control system for very complex multi-agent systems including networks of cooperative robots
AgriBrains - cooperative UAV and other robots in agricultural and environmental measurements, sensing, monitoring, and integration of data with farm planning and production

[3] Communication and Information Distribution
Thirdly, and closely related to the first, is what we provide in development of communications media and channels for the distribution of information on scientific, technical, and engineering developments. We serve partner-client organizations (private-sector companies or non-commercial entities including public agencies) and work with their project teams and management in order to provide accurate and clear content for different audiences, especially those people in financial and investment circles.

We possess capabilities rarely found in one organization – the ability to understand detailed scientific and technical projects, in both research and application levels of development, and the skills for working closely with scientists, managers, executives, and all members of an organization on multi-level communication, dissemination and presentation.

[Focal Areas of Expertise]
Artificial Intelligence and Machine Learning
Quantum Computing
Nanotechnology
[4] Analytical Consultation
Fourthly is what we provide through direct consultative service projects, also spanning STEM and emerging socioeconomic needs, serving organizations that may be private-sector companies or non-commercial entities including public agencies.

Here we make full use of our unique resource pools of qualified and verified people who range from deep experts and specialists to youth and adults who are or have been engaged in our educational program activities. We use what we know and do, in order to serve organizations who need objective, specialized, comprehensive, and future-oriented understanding that pertains to what they are doing and planning in a wide variety of STEM-related activities.

[Focal Areas of Expertise]
Artificial Intelligence and Machine Learning
Quantum Computing
Nanotechnology
Parallel Distributed Computing
Smart Farming
Internet-of-Things
Critical thinking
Evaluation, critical analysis, assessment, futures prediction of new projects and products
Intellectual property and tech transfer
Evaluation and interpretation of popular science and pseudoscience in news and literature

Contact MIRNOVA Academy
martinjoseph@mirnova.org marianna@mirnova.org
+1 505-926-1399
+7 925-161-6713
+7 926-454-2723
Skype: martindudziak