



Strategic Biomass Solutions™

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Renewable Energy Venture Development Academy

Course Presenter: Dr. Sumesh Arora

Strategic Biomass Solutions™

Mississippi Technology Alliance

Course Description (overview, purpose and objectives)

This course will provide a comprehensive set of tools and methodologies to screen, develop, or coach innovation-based renewable energy ventures. The course walks the participants through an overview of the energy market drivers followed by the rigorous process of developing a technology based venture. The course is based around a set of tools called **VentureCapitalTools®** designed to assist entrepreneurs in understanding the requirements of an investor-ready deal. The tools include analysis of the technical, market, & financial validation of a deal from the pure idea stage to a mature venture. The course allows an entrepreneur to assess their risk in five areas: execution, product, market, management and finance. Used with hundreds of entrepreneurial clients, the tools have proven to be able to simplify and prioritize the steps toward success for these ventures. The tools have also been used as an evaluation tool and due-diligence checklist for economic developers and investors who have sought this training to screen potentially viable projects or coach startup ventures in their respective geographical areas. While individual investors and economic developers find the format and criteria of these web-based tools useful as an effective due-diligence method, energy entrepreneurs and project developers using the tools can be assured of common language and expectations regarding valuation as well as technical and market validation. Additionally, the attendees are exposed to the **Butterfly Model®** of inter-organizational collaboration which provides a multi-stakeholder framework to deploy successful renewable energy and emerging technology projects.

The participants will learn about the venture development process as you walk through the following phases of the venture/project development:

- Concept phase
- Development phase
- Commercialization phase

And learn to identify risk in five key areas of the venture development and challenges and opportunities as the relate to the renewable energy markets

- Product/technical risk
- Market risk
- Finance risk
- Management risk
- Execution risk

A final learning objective is a discussion about the need for private-public collaboration and partnerships as you deploy the next generation of renewable energy technologies.

This course is open to economic developers: local, regional and those representing utility companies who are working with renewable energy companies to deploy such projects as well as to all entrepreneurs and project developers who are trying to implement renewable energy projects or starting new ventures in the rapidly changing market segment. Economic developers will learn what to look for in good renewable energy projects and potential investors will also benefit from this information. All participants will receive comprehensive course materials as take-aways from the workshop and will have the ability to consult with the instructor at no-charge for a period of six months after successful completion of the course.

Instructor Bio



Dr. Sumesh Arora is the Director of Strategic Biomass Solutions (SBS) that is focused on commercializing biomass conversion technologies. SBS is largely funded by the U.S. Department of Energy and managed by the Mississippi Technology Alliance, a non-profit organization dedicated to economic development through innovation and technology. As a member of the entrepreneurial development team at MTA, Sumesh provides strategic business guidance to researchers, entrepreneurs, economic developers, communities and investors who are seeking to develop renewable energy projects. His 20 years of commercial experience includes working as a project development engineer for the Mississippi Alternative Energy Enterprise, the State Energy Office, and a research project leader for a large chemical fertilizer manufacturer.

He was named to the “Top 40 Under 40” by the Mississippi Business Journal in 2005 and was appointed by Governor Haley Barbour to represent Mississippi on the national Governors’ Biofuels Coalition. He serves on the advisory boards of two renewable energy startup companies and two firms which invest in renewable energy projects. He is the co-inventor of a patented system to convert poultry litter into renewable energy. Sumesh recently completed his PhD in International Development from the University of Southern Mississippi with research focused on technology adoption and the biotechnology industry in India. He has a Masters in materials engineering and BS in electrical engineering from the University of Central Florida.

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