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**Project brief: Bioengineering Internship with Astungkara Way**

**Subject discipline:** Bioengineering

**Organization background:** Astungkara Way is a social enterprise working to accelerate the transition to regenerative agriculture in Indonesia.

The water that supplies rice farms in Bali comes from the subak system, a unique irrigation system to Bali in Indonesia. The irrigation system in Bali poses particular challenges for farms that are trying to switch to organic methods, as they are significantly affected by whatever practices are happening at nearby farms (especially those upstream). Astungkara Way sought research and design for low cost and natural methods to filter its water supply.

**Internship activities**

- Conduct water testing to determine the current water quality on various parts of the site.
- Research water purification/filtration options and shortlist the strongest candidates.
- Design a low-cost primary filter and focus on a low-tech design that can be easily scaled to different locations.
- Gather feedback from different stakeholders to ensure the design poses no negative impacts on the environment
- Develop prototypes of proposed design.
- Present findings to the organization.