**Application of Blended Learning to Enhance Learning of Engineering Students**

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**Abstract:** This paper presents how blended learning can effectively be adopted in teaching engineering students. Blended learning uses the best aspects of face-to-face and online delivery of engineering courses. The length of abstract should be 200 to 250 words. There should be three to five keywords. Font size: 12 Times New Roman, single line space, no reference, table and figure in the abstract. Authors should use this template to prepare the abstract.

**Keywords:** Engineering education, blended learning, online delivery, students

1. **Introduction**

Mine rehabilitation is an important exercise which aims to help environment. It involves many branches of sciences and law.

The length of full paper should be 5 to 8 pages long including all the tables and figures. Font size: 12 Times New Roman with single line space. A blank line should be inserted between paragraphs, section heading should be bold and equations, tables and figures should be numbered as shown in this template. Authors should use this template in preparing the manuscript.

1. **Method**

This paper uses a Bayesian network method to carry out mine site assessment. It considers uncertainty at each stage of modelling by assuming a normal distribution. The paper adopted a methodology as suggested by Smith (1980), Smith and Jones (2008), Smith et al (2010), Sydney Water (2011) and ABS (2012). It is shown in equation 1.

 (1)

1. **Data Preparation**

The study focuses on a mine site located in Western Australia. Data is collected by setting up of a data collection network as discussed in Honnes et al (2004).

1. **Results**
	1. **Arsenic concentration**

It is found that arsenic is not a major issue in the plants near the mine site. Figure 1 plots the arsenic levels in plant tissues, which show that these are below the acceptable limits set by regulatory authorities in Australia.

* + 1. *Arsenic in water samples*

There are lots of arsenics in water samples. Investigation was made to find their sources. Samples were collected from water and soil samples and tested at weekly intervals for one complete year.

It was then found that arsenic level exceeded at many water samples as well as plant cells. A field survey was made to find out the transport route of arsenic.

Table 1 Arsenic contamination in soil near the mine site

|  |  |  |
| --- | --- | --- |
| Site | Arsenic levels (mg/L) | Comments |
| 1 | 0.02 | Below recommended level |
| 2 | 0.08 | Above recommended level |
| 3 | 0.004 | Below recommended level |



Figure 1 Arsenic level in plant body and adjacent soil

1. **Conclusion**

It has been found that arsenic levels are much higher than the recommended levels in some soil samples and plant tissues. It is recommended that appropriate arsenic control measures need to be undertaken.

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