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## 投稿論文摘要撰寫範本

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### 簡介機械化施工之通風直井工程

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**摘 要** 為了避免土石及淹水災害再度發生，特別將大甲溪發電廠青山分廠之廠房通風直井向上延伸241m至舊棄渣場，故必須採用管幕鋼管工法及全套管排樁工法克服邊坡不穩定及井口鬆散渣料的問題；再利用昇井工法完成深井之導孔及擴孔的工作，以利後續降挖之渣料經由擴孔倒入底部之連接隧道，加速出渣作業。直井貫通後再以地面門型吊車吊裝鋼模，澆置鋼筋混凝土襯砌及環梁；直井內部安裝預鑄鋼筋混凝土井字梁、電梯及樓梯。

**關鍵字：**通風直井、管幕鋼管工法、全套管排樁工法、昇井工法、門型吊車

### Introduction of Ventilation Shaft Project by Mechanized Construction

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**Abstract** In order to re-operation, the underground powerhouse of Chingshan Branch Power Plant must be dredged and rebuilt. In view of flooding, the ventilation shaft extended upward 241m to the muck field, that was filled with loose material; the pipe roofing method and all-casing pile wall method were adopted to reach slope stability and to deal backfill issue. Then raise boring method was used to facilitate muck material down into the connection tunnel, accelerating the mucking operation. After the ventilation shaft was through, steel form was hoisted by the ground gantry crane, reinforced concrete lining and ring beam were placed. The shaft was installed inside with the precast reinforced concrete cross beam, elevator and staircases.

**Keywords:** ventilation shaft, pipe roofing method, all-casing pile wall method, raise boring method, gantry crane