

# 國立臺灣大學技術行銷表

台大案號: 06A-101126

產學合作中心聯絡人：蘇祈烈

電話：02-33669949

e-mail：such@ntu.edu.tw

產品/技術名稱	線切割放電加工機放電點偵測與紀錄器
發明人/單位	廖運炫/機械工程學研究所 鄭孟伯/機械工程學研究所
產品/技術說明	在線切割放電加工製程中，放電點分布之均勻與否，與加工品質與斷線機率息息相關，然而放電點位置不僅難以預測，亦難以光學儀器觀察。本發明則利用上、下導電塊電流之差異，即時推算放電點的位置，同時加以紀錄，並能將放電點位置的資料透過輸出入埠，傳給外部裝置，放電加工機之控制電路可以據以調整加工參數，使放電點分布趨於平均。
應用範圍	機械製造：線切割放電加工精度之改進
產品/技術優勢	此為完全創新之發明，目前市場上並無相類似之產品
市場潛力	本發明若整合至目前現有的線切割放電加工電路中，應可以提升線切割放電加工機之精度，提升線切割放電加工機之產品價值
產品/技術 智財權保護方式	專利申請中
圖片 (已公開之成果可提供圖片)	尚無產品照片可資提供

## Marketing Abstract of NTU's Invention Disclosure

NTU's docket no: \_\_\_\_\_ (由產學合作中心填寫)

CIAC contact :

Tel :

e-mail :

<b>Title</b>	The electrical discharge location detection and recording system for the Wire Electrical Discharge Machining process
<b>Inventor (s)</b>	Liao, Yunn-Shiuan Cheng, Meng-Po
<b>Brief Description</b>	In the Wire Electrical Discharge Machining (WEDM) process, the distribution of the electrical discharge is one of the major factors deciding the surface finishing quality of the workpieces. However, the locations of electrical discharges are not only unpredictable before the machining process, but also unable to be observed by optical apparatus during the process. The proposed invention makes use of the difference of the electrical currents passing through the upper and lower conducting seats, to estimate the location of every single electrical discharge on a real-time basis. The discharge location data are also recorded and can be transferred to any outer device through the input/out port embedded in the system. The data could be helpful to the control circuit of the WEDM machine tools in determining the most appropriate combination of machining parameters.
<b>Fields of Application</b>	<ul style="list-style-type: none"> <li>● Mechanical manufacturing</li> <li>● Machining process</li> <li>● Machining tools</li> </ul>
<b>Advantages</b>	(when compared to the existing technologies) The invention is an innovated creation. Currently, there is no similar existing technology or similar prior art in the market.
<b>Market Potential</b>	With the invention, the Wire Electrical Discharge Machining tools could be much improved in terms of their manufacturing precision.
<b>IP Right(s)</b>	Patent pending
<b>Picture</b>	Not available