PLANT PHYSIOLOGY

DETECTION OF ELECTRO – PHYSIOLOGICAL SIGNALS FROM PLANTS AND TREES – PHASE II

by

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Project Report

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SUMMARY

DETECTION OF ELECTRO-PHYSIOLOGICAL SIGNALS FROM PLANTS AND TREES PHASE II

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The objective of this project was to investigate the possible detection of Electro-Physiological signals transmitted by trees and plants. A sensitive amplification system was designed and used for this purpose, incorporating notch and low pass filters for the rejection of various unwanted frequencies that can have disastrous effects in such systems.

The notch filter was used in order to eliminate the 50Hz hum coming from the supply or any other interfering source.

The low pass filter was used to band limit the frequency at a range of 1Hz - 40Hz because theoretically, signals coming from trees and plants are of very low frequencies.

Some very weak signals were observed, using the circuit mentioned above but it is very difficult to say with certainty that these signals were in fact electro-physiological signals coming from plants.

Further work is recommended on the matter and the author hopes that next years' student, who will be working on the same subject, achieves to prove the existence of such signals.

There may be some truth in the ancient belief that you had to apologize to the spirit of the forest before cutting down a tree.

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