EMERGENCY TRACK WAY

An emergency situation like fire, floods, earthquake, attacks by enemy/terrorists that poses an immediate threat to a person’s health, security, property, or environment requires urgent attention by the concern authorities. The route from the base station to the affected area plays a crucial role in controlling the situation. Sometimes the terrain/path is not easy which creates difficulty and increases time to act. It is well known that emergency track-way is widely used in such rescue operations for speedy access to the site. The Emergency Track material is employed in wildfire/marshy/swamp/ desert/ semi-desert terrain for mobility of supply & transport vehicles and also useful for emergency vehicles during natural disasters floods, earthquakes, Fires etc. for rescue operations and supply of essential goods. It is highly helpful in warzone for military for quick movement of supply and combat vehicles which is sometimes decisive in gaining control of the situation. Presently, aluminum alloy extrusions in the form of planks which are joined to form 25 m rolls, 1 m wide are used for these track-way. The weight of these rolls is 350-400Kgs.

There are many disadvantages listed as under:
1. Heavy and Inconvenient
2. Resistant to bend with the terrain
3. More manpower
4. Time Consuming for track laying
5. Not suitable in fire
6. Danger of tires burst because of worn out metal protrusions.

SASMIRA is working on development of a light weight and portable solution for emergency trackway. A woven textile fabric sample has been developed using conventional loom made up of very Coarse High Performance synthetic yarns capable of bearing high stress and temperatures and reinforced with high strength composite rod /spring steel to enhance the grip of the vehicles and transfer the load to the sub-soil. The advantages will be:
1. Light weight and durable
2. Temp tolerance up to 500°C for use in firefighting and warzone.
3. The track-way able to blend/bend with the terrain.
4. It facilitates ease of laying and recovery with manual effort as well as mechanical aids.
5. Easily and quickly transportable

The base fabric of the developed sample is aramid material; metal bars have been inserted at fixed interval. Aramid material makes it fire resistant and metal bars provide grip to the tiers of the moving vehicle. The fabric has been developed through weaving technology. Ultimate goal is to develop a light weight easy to use emergency track-way for providing mobility for speedy access to the site in situations like fire, floods, earthquake, attacks by enemy/terrorists that poses an immediate threat to a person's health like rescue operations.

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