

Title (en)  
MESH-GATEWAY NETWORK AND METHOD

Title (de)  
MESH-GATEWAY-NETZWERK UND VERFAHREN

Title (fr)  
RÉSEAU MAILLÉ À PASSERELLES ET PROCÉDÉ

Publication  
**EP 4104155 A1 20221221 (DE)**

Application  
**EP 21705163 A 20210211**

Priority  
• DE 102020103418 A 20200211  
• EP 2021053348 W 20210211

Abstract (en)  
[origin: CA3167447A1] The invention relates to a method for early detection of a forest fire using an end device having a sensor unit, the sensor unit performing signal detection in a first signal detection mode and in a second signal detection mode, and to a forest fire early detection system for performing the method.

IPC 8 full level  
**G08B 17/10** (2006.01); **G08B 25/00** (2006.01)

CPC (source: EP US)  
**G08B 17/005** (2013.01 - US); **G08B 17/117** (2013.01 - US); **H04L 1/1607** (2013.01 - US); **H04W 4/12** (2013.01 - US); **H04W 4/38** (2018.02 - US); **H04W 4/70** (2018.02 - EP); **H04W 40/246** (2013.01 - US); **H04W 88/16** (2013.01 - EP); **H04W 84/38** (2018.02 - EP); **H04W 84/18** (2013.01 - EP US); **H04W 88/16** (2013.01 - US); **Y02A 40/28** (2018.01 - EP); **Y02D 30/70** (2020.08 - EP)

Citation (search report)  
• [XIY] CN 108665667 A 20181016 - UNIV GUILIN TECHNOLOGY  
• [Y] DE 102017117170 B3 20180830 - PHYSEC GMBH [DE]  
• [XYA] US 2018183875 A1 20180628 - LIU YANG [CN], et al  
• [XIA] US 2014118143 A1 20140501 - MONACOS STEVE P [US], et al  
• [XIA] SALDAMLI GOKAY ET AL: "Wildfire Detection using Wireless Mesh Network", 2019 FOURTH INTERNATIONAL CONFERENCE ON FOG AND MOBILE EDGE COMPUTING (FMEC), IEEE, 10 June 2019 (2019-06-10), pages 229 - 234, XP033597871, DOI: 10.1109/FMEC.2019.8795316  
• [XIA] JUNGUO ZHANG ET AL: "Forest fire detection system based on wireless sensor network", INDUSTRIAL ELECTRONICS AND APPLICATIONS, 2009. ICIEA 2009. 4TH IEEE CONFERENCE ON, IEEE, PISCATAWAY, NJ, USA, 25 May 2009 (2009-05-25), pages 520 - 523, XP031482088, ISBN: 978-1-4244-2799-4  
• [XIA] LIOLIS K ET AL: "An automated fire detection and alerting application based on satellite and wireless communications", ADVANCED SATELLITE MULTIMEDIA SYSTEMS CONFERENCE (ASMA) AND THE 11TH SIGNAL PROCESSING FOR SPACE COMMUNICATIONS WORKSHOP (SPSC), 2010 5TH, IEEE, PISCATAWAY, NJ, USA, 13 September 2010 (2010-09-13), pages 270 - 277, XP031764179, ISBN: 978-1-4244-6831-7  
• See also references of WO 2021160747A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**DE 102021103225 A1 20210812**; AU 2021218959 A1 20220818; AU 2021219944 A1 20220818; AU 2021220615 A1 20220818; BR 112022015852 A2 20221004; BR 112022015853 A2 20221004; BR 112022015854 A2 20221004; BR 112022015857 A2 20221004; CA 3165812 A1 20210819; CA 3167447 A1 20210819; CA 3167624 A1 20210819; CN 115299175 A 20221104; CN 115315735 A 20221108; CN 115398500 A 20221125; DE 102021103226 A1 20210812; DE 102021103228 A1 20210812; DE 102021103229 A1 20210812; EP 4104154 A1 20221221; EP 4104155 A1 20221221; EP 4104640 A1 20221221; EP 4104641 A1 20221221; US 2023088526 A1 20230323; US 2023092573 A1 20230323; US 2023093492 A1 20230323; US 2023098107 A1 20230330; WO 2021160746 A1 20210819; WO 2021160747 A1 20210819; WO 2021160749 A1 20210819; WO 2021160750 A1 20210819

DOCDB simple family (application)  
**DE 102021103225 A 20210211**; AU 2021218959 A 20210211; AU 2021219944 A 20210211; AU 2021220615 A 20210211; BR 112022015852 A 20210211; BR 112022015853 A 20210211; BR 112022015854 A 20210211; BR 112022015857 A 20210211; CA 3165812 A 20210211; CA 3167447 A 20210211; CA 3167624 A 20210211; CN 202180013621 A 20210211; CN 202180013856 A 20210211; CN 202180013906 A 20210211; DE 102021103226 A 20210211; DE 102021103228 A 20210211; DE 102021103229 A 20210211; EP 2021053347 W 20210211; EP 2021053348 W 20210211; EP 2021053350 W 20210211; EP 2021053351 W 20210211; EP 21705163 A 20210211; EP 21705164 A 20210211; EP 21705901 A 20210211; EP 21706184 A 20210211; US 202117798582 A 20210211; US 202117798895 A 20210211; US 202117798900 A 20210211; US 202117798915 A 20210211