

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(10) 国际公布号
WO 2023/078039 A1

(43) 国际公布日
2023年5月11日 (11.05.2023)

(51) 国际专利分类号:
A61B 6/03 (2006.01)

UNIVERSITY) [CN/CN]; 中国北京市海淀区清华园1号, Beijing 100084 (CN)。

(21) 国际申请号: PCT/CN2022/124586

(72) 发明人: 陈志强(CHEN, Zhiqiang); 中国北京市海淀区双清路同方大厦A座2层, Beijing 100084 (CN)。 张丽(ZHANG, Li); 中国北京市海淀区双清路同方大厦A座2层, Beijing 100084 (CN)。 孙运达(SUN, Yunda); 中国北京市海淀区双清路同方大厦A座2层, Beijing 100084 (CN)。 赵振华(ZHAO, Zhenhua); 中国北京市海淀区双清路同方大厦A座2层, Beijing 100084 (CN)。 金鑫(JIN, Xin); 中国北京市海淀区双清路同方大厦A座2层, Beijing 100084 (CN)。 沈乐(SHEN, Le); 中国北京市海淀区双清路同方大厦A座2层, Beijing 100084 (CN)。 梁午阳(LIANG,

(22) 国际申请日: 2022年10月11日 (11.10.2022)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
202111310304.4 2021年11月5日 (05.11.2021) CN

(71) 申请人: 同方威视技术股份有限公司 (NUCTECH COMPANY LIMITED) [CN/CN]; 中国北京市海淀区双清路同方大厦A座2层, Beijing 100084 (CN)。 清华大学(TSINGHUA

(54) Title: BEAM OUTPUT CONTROL METHOD AND APPARATUS FOR OPTICAL MACHINE IN IMAGING SYSTEM, AND CT IMAGING SYSTEM

(54) 发明名称: 成像系统中光机出束控制方法、装置、CT成像系统

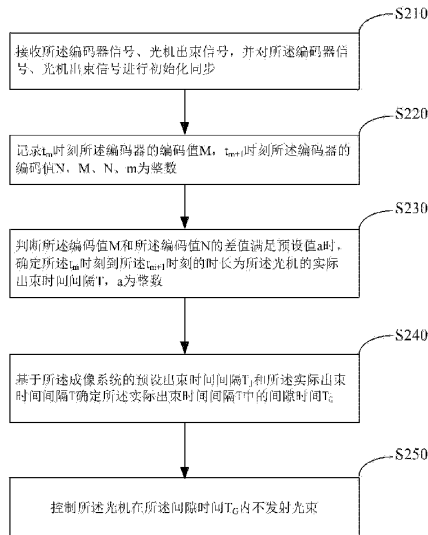


图 1

S210 Receive an encoder signal and an optical machine beam output signal, and perform initialization synchronization on the encoder signal and the optical machine beam output signal
S220 Record an encoding value M of an encoder at a moment t_m , and an encoding value N of the encoder at a moment t_{m+1} , wherein M, N and m are integers
S230 When it is determined that the difference between the encoding value M and the encoding value N satisfies a preset value a, determine the duration from the moment t_m to the moment t_{m+1} as an actual beam output time interval T of an optical machine, wherein a is an integer
S240 Determine a gap time TG in the actual beam output time interval T on the basis of a preset beam output time interval TJ of an imaging system and the actual beam output time interval T
S250 Control the optical machine to not emit a light beam in the gap time TG

(57) Abstract: Provided is a beam output control method for an optical machine in an imaging system. Also provided are a beam output control apparatus for an optical machine in an imaging system, and a CT imaging system, an electronic device, a storage medium and a program, which relate to the technical field of security inspection imaging. The control method comprises: receiving an encoder signal and an optical machine beam output signal, and performing initialization synchronization on the encoder signal and the optical machine beam output signal (S210);

[见续页]

Wuyang); 中国北京市海淀区双清路同方大厦A座2层, Beijing 100084 (CN)。

(74) 代理人: 中科专利商标代理有限责任公司 (CHINA SCIENCE PATENT & TRADEMARK AGENT LTD.); 中国北京市海淀区西三环北路87号4-312室, Beijing 100089 (CN)。

(81) 指定国 (除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW。

(84) 指定国 (除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

本国际公布:

— 包括国际检索报告 (条约第21条(3))。

recording an encoding value M of an encoder at a moment t_m , and an encoding value N of the encoder at a moment t_{m+1} , wherein M , N and m are integers (S220); when it is determined that the difference between the encoding value M and the encoding value N satisfies a preset value a , determining the duration from the moment t_m to the moment t_{m+1} as an actual beam output time interval T of an optical machine, wherein a is an integer (S230); determining a gap time T_G in the actual beam output time interval T on the basis of a preset beam output time interval T_j of an imaging system and the actual beam output time interval T (S240); and controlling the optical machine to not emit a light beam in the gap time T_G (S250). By means of the control method, the problem of disordered sampled images caused by belt speed fluctuations is solved.

(57) 摘要: 一种成像系统中光机出束控制方法, 以及涉及成像系统中光机出束控制装置、CT成像系统、电子设备、存储介质和程序, 并且其涉及安检成像技术领域。该控制方法包括接收编码器信号、光机出束信号, 并对编码器信号、光机出束信号进行初始化同步 (S210); 记录 t_m 时刻编码器的编码值 M , t_{m+1} 时刻编码器的编码值 N , M 、 N 、 m 为整数 (S220); 判断编码值 M 和编码值 N 的差值满足预设值 a 时, 确定 t_m 时刻到 t_{m+1} 时刻的时长为光机的实际出束时间间隔 T , a 为整数 (S230); 基于成像系统的预设出束时间间隔 T_j 和实际出束时间间隔 T 确定实际出束时间间隔 T 中的间隙时间 T_G (S240); 控制光机在间隙时间 T_G 内不发射光束 (S250)。该控制方法解决了带速波动导致的采样图像错乱的问题。